VISTA XM SERIES

TECHNICAL REFERENCE MANUAL

ADEMCO

VISTA-TR 6/90

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CONGRATULATIONS and WELCOME to the VISTA XM FAMILY!

The purpose of this TECHNICAL REFERENCE MANUAL is to give you, the installer, a better understanding of the operation and capabilities of the VISTA XM Series of products. From the most basic configuration to the most complex, this manual will help you fully understand each option, step-by-step. The manual defines the system components, provides specific wiring and programming instructions (complemented with numerous diagrams) and describes the system's operation. In addition, a comprehensive glossary is included to help avoid confusion with the system's state of the art terminology.

As always, ADEMCO is there for YOU! Our SALES and TECHNICAL SUPPORT staff are eager to assist you in any way they can, so don't hesitate to call, for any reason!

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Again, CONGRATULATIONS, and WELCOME ABOARD!

NOTE: THIS ISSUE HAS BEEN SUBSTANTIALLY REVISED.

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SEVEN STEPS TO EASY INSTALLATION

The following steps are required to properly install a VISTA XM system:

STEP 1 Become familiar with the system by reading the GENERAL INFORMATION section. Determine the hardware required for the installation by reviewing section II: HARDWARE OVERVIEW.

STEP 2 Determine the system's zone configuration and wiring requirements by reviewing section III: ZONE TYPE DEFINITIONS, section IV: SYSTEM CONFIGURATION (ZONES) and section V: SYSTEM CONFIGURATION (PERIPHERALS). If the installation is UL rated, check the special UL requirements in section XIII.

STEP 3 Once the wiring is completed, mount the Control and make power connections following the instructions provided in section VI: MOUNTING PROCEDURES and section VII: POWERING THE SYSTEM.

STEP 4 Learn how the system operates, including security codes and keypad functions by reading section VIII: SYSTEM OPERATION.

STEP 5 If the system is to be supervised by a central monitoring station, read section IX: SYSTEM COMMUNICATION for descriptions of reporting formats and a list of communication programming default tables.

STEP 6 Program the system via the keypad or by downloading from a remote location, following the instructions in section X: PROGRAMMING THE SYSTEM and section XI: DOWNLOADING (if applicable).

STEP 7 Test the system and teach the user how to perform all commands, following the procedures in section XII: TESTING THE SYSTEM.

If problems occur, refer to section XIV: TROUBLESHOOTING.

ADVISORIES Throughout this manual, information that requires special attention is highlighted in the ADVISORIES paragraphs. This information includes system limitations, caveats and other information vital to the proper operation of the system. Be sure to read these paragraphs carefully.

MODEL NUMBERS Unless otherwise noted, product model numbers listed in this manual refer to Ademco products.

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SECTION I
GENERAL INFORMATION

THE VISTA CONTROLS

The VISTA XM Controls are microprocessor based programmable systems which provide up to 9 wired zones of protection, expandable to 64 zones (wired and/or wireless) when connected to a 2-wire polling loop. The VISTA XM Series includes the 4130XM, 5130XM, and 4140XM Controls and the 4137 & 5137 Remote Consoles, which are look-alikes to the 4130XM & 5130XM respectively. Connections to the Control are made via a plug-in connector, which can be removed without disturbing any of the field wiring. The phone lines are connected to a separate block located on the communicator board (4171XT-XM or 4171XM; ordered separately with the 4130XM/ 5130XM; 4171XT-XM included with the 4140XM).

- **4140XM**

The 4140XM is housed in a metal cabinet, measuring 12" x 12" x 3", and requires the use of either the 4137 fixed message or 5137 alpha-numeric (allowing use of the 4140XM's built-in vocabulary) remote consoles, and can also be used with the 4146 keystation. A SPDT relay, rated @ 2.8 amps, is built-in for use with a No. 702, or No. 719 (or equivalent) exterior sounder. For UL mercantile installations, the 4140ATX can be used. The 4140ATX is the same as the 4140XM, but features a larger, heavier gauge cabinet and a cabinet tamper switch.

- **4130XM**

The 4130XM is a self-contained Control with an LCD using 2 numeric digits for zone identification, and a set of pre-designated English language prompts, for system status (ex: "READY", "NOT READY"). A built-in 85dB UL listed sounder is also included. The Control can be surface or flush mounted.

- **5130XM**

The 5130XM is also a self-contained Control, but with a 2-line, 32-character (16 characters per line), back-lit, programmable alpha-numeric LCD. Unlike the 4130XM, the 5130XM (and 4140XM, when used with the 5137 console) contains a built-in 220 word vocabulary from which to choose words for describing each zone in friendly English language. In addition, up to 5 custom word entries to suit the individual needs of each installation can also be programmed. Like the 4130XM, the 5130XM contains a built-in 85dB UL listed sounder and can be surface or flush mounted.

EASY PROGRAMMING

The Control can be programmed either on the job site directly from the keypad, or remotely by using the ADEMCO 4130PC DOWNLOADING SOFTWARE, an IBM (or compatible) computer, and a HAYES 1200 Smartmodem. (See the PROGRAMMING section for a complete explanation).

All programmed options are stored in non-volatile EEROM memory. This means that old fashioned PROM chips are no longer needed, and the program can be changed over and over again, as the needs of a particular system grow. It also means that the program cannot be lost or changed in any way if power to the Control is lost. Even if completely powered down for long periods of time, the program will remain intact.

For installer convenience, the Control is pre-programmed with a set of "standard" values that is designed to meet the needs of many installations. These values, however, can be changed to suit the needs of any particular installation. Specific programming instructions are provided in the PROGRAMMING section of this manual.

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MEMORY-OF-ALARM

The VISTA Controls provide a memory-of-alarm feature, which, upon disarming the system, automatically displays all zones that were in an alarm condition while the system was armed. To cancel this display, the user simply enters the security code and presses the OFF key. In addition, a 10 day alarm/trouble history is maintained by the system, which helps the installer or central station to identify problem sensors. To activate this feature, enter the security code + the [0] key. To clear the display, enter the security code and press the OFF key. Note that once the 10 day alarm/trouble history display has been cleared, it is also cleared from the system's memory.

BUILT-IN USER'S MANUAL/ DESCRIPTOR REVIEW

For end-user convenience, the 5130XM and 4140XM (with 5137) contain a "built-in Users Manual". By depressing and holding any of the function keys on the console for 5 seconds, a brief explanation of that particular function scrolls across the ALPHA-NUMERIC display. For example, if the user forgets how to bypass a zone, he or she simply depresses the key marked "BYPASS" and holds it for 5 seconds. The information will then scroll across the display, explaining how to bypass a zone.

In addition, all programmed zone descriptors can be displayed (one at a time) by pressing and holding the READY key until the key's instructions appear (5 seconds), then releasing the key. This serves as a check for installers to be sure all descriptors are entered properly. This feature is also helpful to the user when there is a need to know the zone number of a particular sensor (as when bypassing zones).

COMMUNICATIONS

The system can be monitored by a central station, via the switched telephone network. Upon alarms, programmed communicator reports will be transmitted up to the programmed maximum (swinger suppression) in one armed interval. Restoral reports will be sent when the zone is restored for a time greater than its physical response time (less than 1 second). In addition, the system also sends system status reports (AC loss, system trouble, etc.). The system also provides voltage triggers for other communication devices, such as Ademco's Long Range Radio system.

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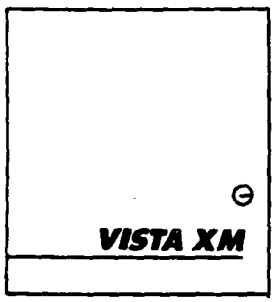
SECTION II
HARDWARE OVERVIEW

— A. VISTA XM SERIES CONTROL PANELS —

COMMON FEATURES

- Basic 9 wired zones, expandable to 64 zones (wired, and/or wireless).
- 22 user codes.
- Downloadable (office or site initiated).
- Independent auxiliary voltage trigger outputs for FIRE, PANIC, BURG, and OPEN/CLOSE.
- ADEMCO High Speed, 4+2, traditional low speed, ADEMCO's Express and the new Contact ID communication formats available.

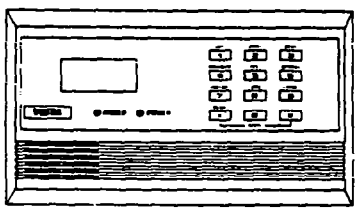
• 4140XM



VISTA XM CONTROL (Cabinet Mounted)

- Housed in a metal cabinet measuring 12" x 12" x 3".
- 700 mA continuous auxiliary power.
- Built-in SPDT alarm relay rated for 2.8 amps @28 volts.
- Alpha-Numeric zone descriptors (with 5137 remote console) with a built-in 220 word dictionary, plus an additional 5 custom word entries and an installer's message can be programmed (ex: ABC Alarms Call 1-800-123-4567).
- Removeable terminal strip for easy installation and service.
- Up to a 6AH battery can be used for maximum standby time (gel cell only!).
- Built-in "User's Manual" and "Descriptor Review Mode" (with 5137 remote console).

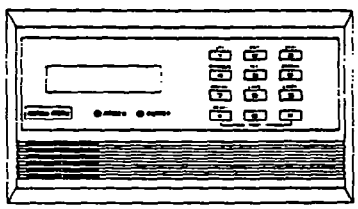
• 4130XM



VISTA XM FIXED-WORD CONSOLE/CONTROL

- Self-contained, compact design.
- Surface or Flush mounted (hardware included).
- Liquid Crystal Display (LCD) with 2-digit numeric zone identification and pre-designated English language prompts for system status (ex: "READY", "NOT READY").
- Built-in UL sounder (85 dB @10 feet).
- Removeable wiring harness for easy installation and service.

• 5130XM



VISTA XM ALPHA CONSOLE/CONTROL

- Self-contained, compact design.
- Surface or Flush mounted (hardware included).
- 2-line, 32-character, Alpha-Numeric Liquid Crystal Display (LCD), programmable for English language descriptors of each zone (ex: "JOHNNY'S ROOM").
- Built-in "User's Manual" and "Descriptor Review Mode".
- Built-in UL sounder (85 dB @ 10 feet).
- Removeable wiring harness for easy installation and service.

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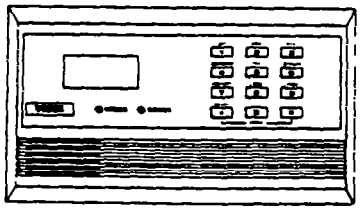
— B. REMOTE CONSOLES & KEYSWITCH —

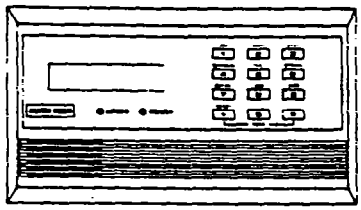
• 4137



4-WIRE, 4130XM LOOK-ALIKE CONSOLE

- Equipped with a liquid crystal display (LCD) using 2-digit numerics for zone identification, and a set of pre-designated English language prompts, such as "READY", "NOT READY", etc. for system status.
- A built-in alarm sounder is also included, which eliminates the need for a separate indoor sounder.
- The 4137 can be used with the 4130XM, 5130XM, and 4140XM Controls.

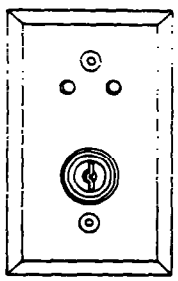
• 5137



4-WIRE, 5130XM LOOK-ALIKE CONSOLE

- Equipped with a programmable 2-line, 32-character (16 characters per line), back-lit, ALPHA-NUMERIC LCD for complete zone identification in English language (if descriptors are programmed).
- An alarm sounder is built in, eliminating the need for a separate indoor sounder.
- The 5137 can be used with the 5130XM and 4140XM Controls.

• 4146



REMOTE KEYSWITCH KIT

- The remote plate contains 2 LED's for system status, and houses a spring-loaded keyswitch for arming and disarming the system.
- An optional tamper switch (No. 112) can be added, if desired.
- All of the VISTA XM Controls can accommodate one No. 4146 remote plate. (More than one can be used if 688-12 switching modules are used to boost the LED drive outputs for ARMED and READY status.)

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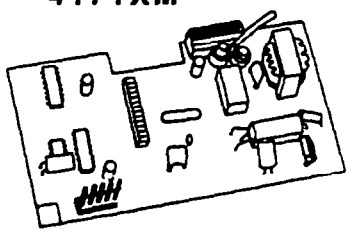
— C. DIALERS —

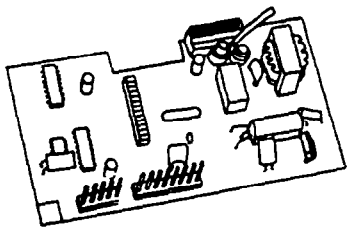
- **4171XM**



DIALER (for 9 zone configuration)

- For use with either the 4130XM or 5130XM in the basic 9 zone configuration.
- Auxiliary voltage triggers for FIRE, PANIC, BURG, and OPEN/CLOSE.
- "Site-initiated" Downloading.
- ADEMCO High Speed, ADEMCO Express, Contact ID, 4+2, and traditional low speed formats.
- Ground Start compatible.

- **4171XT-XM**



DIALER (for expanded zone configuration)

- For use with either the 4130XM or 5130XM (factory installed with 4140XM).
- Expansion, up to 64 zones (when interfaced with the 4152LMB).
- Auxiliary voltage triggers for FIRE, PANIC, BURG, and OPEN/CLOSE.
- Full Download capabilities (site or office initiated).
- ADEMCO High Speed, ADEMCO Express, Contact ID, 4+2, and traditional low speed. formats.
- Ground Start compatible.

— D. 2-WIRE SMOKE DETECTORS —

- Up to three 2-wire BRK smoke detectors can be used. Compatible detectors include:

- **1400** • 2-wire, IONIZATION.
- **2400** • 2-wire, PHOTOELECTRIC
- **2400TH** • 2-wire, PHOTOELECTRIC with 135° F (57° C) heat detector.

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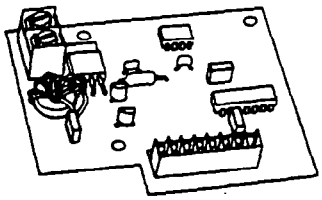
— E. 2-WIRE POLLING LOOP DEVICES —

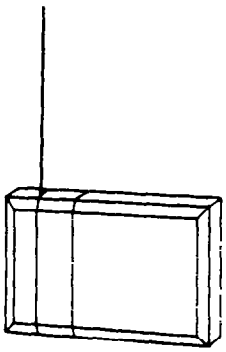
• 4152LMB



POLLING LOOP MODULE

- When interfaced with the 4171XT-XM dialer board, polling loop and/or wireless zone expansion to 64 zones can be accomplished using RPMs (Remote Point Modules) and/or the 4280 RF receiver module with ALERT III transmitters.

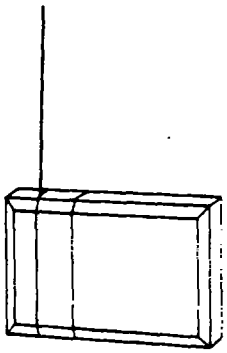
• 4280



RF RECEIVER MODULE (63 zones)

- 200 foot range.
- Connected to the 4152LMB via a 2-wire polling loop, the 4280 can be used with up to 63 wireless transmitters (ALERT III), plus a wireless keypad.
- House ID "SNIFFER" Mode to "sniff out" all other house ID's from neighboring systems in the local area.
- Transmitter "SNIFFER" Mode to "sniff out" any transmitters which are using your House ID.
- Up to two 4280s can be used in a system for redundancy, or to increase the area of coverage.
- Powered directly from the polling loop, or separately from auxiliary power. **NOTE:** If two 4280s are used, the second 4280 *must* be powered from auxiliary power

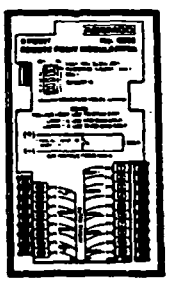
• 4280-8



RF RECEIVER MODULE (8 zones)

- 200 foot range.
- Connected to the 4152LMB via a 2-wire polling loop, the 4280-8 can be used with up to 8 wireless transmitters (ALERT III type).
- House ID "SNIFFER" Mode to "sniff out" all other house ID's in the local area.
- Transmitter "SNIFFER" Mode to "sniff out" any transmitters which are using your House ID.
- Up to two 4280-8s can be used for redundancy, or to increase the area of coverage.
- Powered directly from the polling loop, or separately from auxiliary power. **NOTE:** If two 4280-8s are used, the second 4280-8 *must* be powered from auxiliary power

• 4208



EIGHT ZONE POLLING LOOP EXPANSION MODULE

- Connected to the 4152LMB via a 2-wire polling loop and is used with up to 8 hard-wired devices.
- Set DIP switches to identify 8 zones.
- The first two zones can be either normal or fast response (DIP switch selectable).
- All zones are EOLR supervised (first six zones = 4.7K, last two zones = 30K).
- **NOTE:** Does not support 2-wire smoke detectors.

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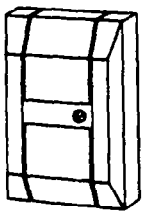
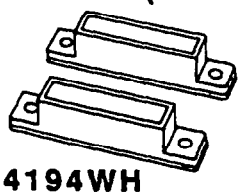
- **4190WH**



TWO-ZONE REMOTE POINT MODULE

- DIP switch programmable. The left zone can be EOLR supervised, if necessary, and can accept either open or closed circuit sensors. The right zone is unsupervised and can accept closed circuit sensors only.
- Connected to 4152LMB via a 2-wire polling loop.

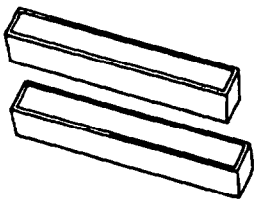
- **4139WH (White) or 4139GY (Gray) or 4139BR (Brown)**



SURFACE MOUNTED REED CONTACT (Compact)

- Compact surface mounted magnetic reed contact with built-in RPM. The 4201 programmer must be used to program this contact.
- Connected to 4152LMB via a 2-wire polling loop.

- **4194WH**



SURFACE MOUNTED REED CONTACT (Wide Gap)

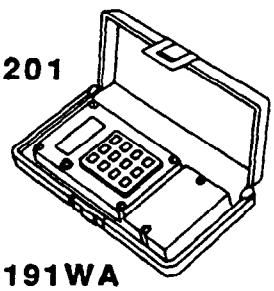
- Wide Gap Surface mounted reed contact with built-in RPM; DIP switch programmable.
- Connected to 4152LMB via a 2-wire polling loop.

- **4191WH**

RECESSED REED CONTACT

- Recessed (1/2" dia.) magnetic reed contact with built-in RPM. The 4201 programmer must be used to program this contact.
- Connected to 4152LMB via a 2-wire polling loop.

- **4201**



RPM PROGRAMMER

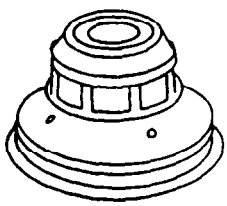
- Portable Programmer for the 4139 and 4191 contacts.

- **4191WA**

RECESSED REED CONTACT STEEL DOOR ADAPTER

- Plastic adapter plug for the 4191WH. Should be used when installing the contact into a metal frame.

- **4192SD**



PHOTOELECTRIC SMOKE DETECTOR

- One piece photoelectric smoke detector with built-in RPM; DIP switch programmable.
- Connected to 4152LMB via a 2-wire polling loop.

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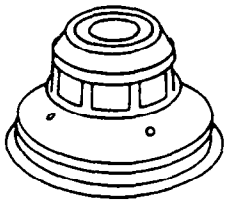
- **4192SDT**



PHOTOELECTRIC SMOKE DETECTOR W/HEAT DETECTOR

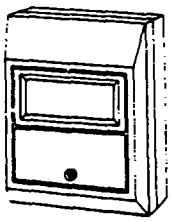
- One piece photoelectric smoke detector with 135°F (57°C) Heat Detector. The built-in RPM is DIP switch programmable.
- Connected to 4152LMB via a 2-wire polling loop.

- **4192CP**

IONIZATION SMOKE DETECTOR

- One piece products of combustion ionization detector with built-in RPM; DIP switch programmable.
- Connected to 4152LMB via a 2-wire polling loop.

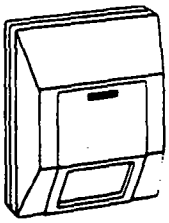
- **4196**



QUAD ELEMENT PASSIVE INFRARED DETECTOR

- PIR with built-in RPM; DIP switch programmable; included are mirrors for both Wide Angle and Long Range applications; Has a separate right zone which can accept closed circuit sensors only (no EOLR supervision).
- Connected to 4152LMB via a 2-wire polling loop.

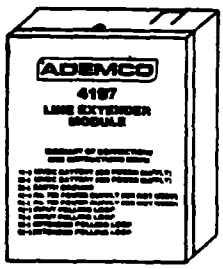
- **4275**



DUAL ELEMENT PASSIVE INFRARED DETECTOR

- PIR with built-in RPM; DIP switch programmable; included are mirrors for both Wide Angle and Curtain/Long Range applications.
- Connected to 4152LMB via a 2-wire polling loop.
- Built-in pulse count capability (selectable).
- Can use the 1875PA Pet Alley mirror.

- **4197**



POLLING LOOP EXTENDER MODULE

- If the 2-wire polling loop must be greater than the recommended length (4000' maximum), the 4197 is required. By installing the 4197 at the end of the first loop, you can now continue your polling loop. If more than 64 mA needs to be drawn from the polling loop to power RPMs, use of the 4197 provides another loop with 64mA available.
- Connected to the 2-wire polling loop and is powered from auxiliary power or by a separate 729 power supply with battery backup.

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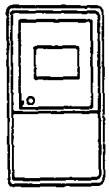
— F. WIRELESS DEVICES —

TRANSMITTER BATTERIES

All transmitters use 9 volt batteries. Either Alkaline type or Kodak lithium batteries may.be used. Lithium batteries should last 4-7 years under normal use and have a shelf life of 7 years. Transmitters will transmit a "Low Battery" signal when battery has 30 days of life remaining.

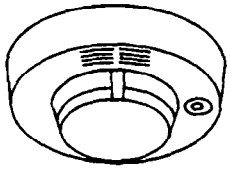
- **5701**



PANIC TRANSMITTER

- Programmable for either silent or audible 24 hour alarm (can be DIP switch programmed for zones 62 or 63).

- **5706**



PHOTOELECTRIC SMOKE DETECTOR

- One piece photoelectric smoke detector with built-in transmitter (DIP switch programmable for zones 48 through 55).
- Built-in 85 dB piezoelectric alarm sounder
- Built-in audible low battery warning.

- **5711**

SLIMLINE DOOR/WINDOW TRANSMITTER

- Can be used with any closed circuit sensor. **NOTE:** Can be used on any zone, 1 through 63 but, if programmed for 32-47, there will be a 3 minute lock-out between transmissions.

- **5711WM**

DOOR/WINDOW TRANSMITTER W/REED SWITCH

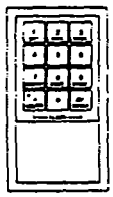
- Slimline door/window transmitter with a built-in reed switch (magnet included). Can be used with any closed circuit sensor. **NOTE:** Can be used on any zone, 1 through 63, but, if programmed from 32-47, there will be a 3 minute lock-out between transmissions.

- **5715WH (white) or 5715BR (brown)**

UNIVERSAL TRANSMITTER

- DIP switch selectable for fast response, open or closed circuit sensor usage, and has a tamper protected cover. Use in applications where open circuit Heat Detectors are needed or where fast response devices are needed. **NOTE:** Can be used on any zone, 1 through 63, but, if programmed from 32-47, there will be a 3 minute lock-out between transmissions.

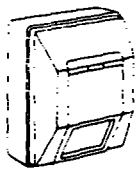
- **5727**



WIRELESS KEYPAD

- Wireless keypad that can be used to turn the burglary protection on and off with built-in panic function, [*] + [#], for either a silent or audible 24 hour alarm. There is an LED indication to verify transmission located in the [*] READY key. (Each time a key is depressed the LED flashes). The keypad is identified as zone 00 when it transmits low battery messages. The Panic is identified as "99".

- **5775**



WIRELESS PASSIVE INFRARED DETECTOR

- Wireless Dual Element Passive Infrared (PIR). DIP switch programmable for zones 32 through 47. **NOTE:** There is a 3 minute lock-out between transmissions to preserve battery life.
- Built-in pulse count capability (selectable).

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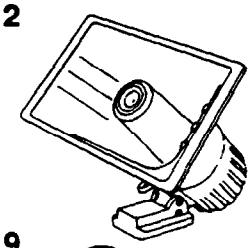
— G. SOUNDERS —

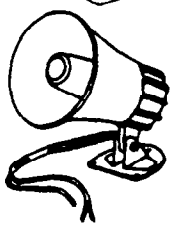
- **702**



OUTDOOR SIREN

- Self-contained siren (driver built-in) and weatherproof for outdoor use. Can be wired for either a steady or yelp sound, and is rated at 120 dB @ 10 feet. This siren can also be tamper protected, or can be mounted in a metal cabinet (716), which can be tamper protected. Must be used with the 4148 Relay Module when using the 4130XM or 5130XM Control.

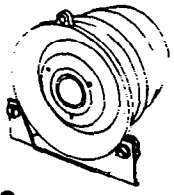
- **719**



OUTDOOR SIREN (Compact)

- Compact, self-contained siren (driver built-in), and weatherproof for outdoor use. Can be wired for either a steady or yelp sound, and is rated at 90 dB @ 10 feet. A 708BE cabinet is available, which can be tamper protected if necessary. Must be used with the 4148 Relay Module when using the 4130XM or 5130XM Control.

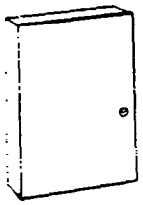
- **740**



HIGH INTENSITY SOUNDER

- Compact high intensity sounder rated at 123 dB @ 10 feet. This sounder emits an "ear-piercing", high frequency sound; can be mounted indoors (bracket included)., or outdoors (can be mounted in 708BE cabinet)

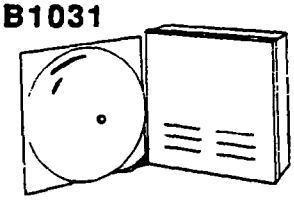
- **4149**



702 SIREN JUNCTION BOX KIT

- Siren junction box kit. Recommended for use with the self-contained controls where a 702 siren is desired. The kit includes a 4134-12 metal cabinet with 4148 relay mounted inside, a 702 self-contained siren, and a 12 volt 4.0 AH battery.

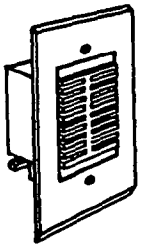
- **ABB1031**



MOTOR BELL & BOX

- AMSECO motor bell & box, 81 dB @ 10'.

- **PA400B (beige) or PA400R (red)**



INDOOR PIEZO SOUNDER

- BRK indoor piezo sounder (red or beige), 90 dB @ 10'

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SECTION III
ZONE TYPE DEFINITIONS

GENERAL INFORMATION

The VISTA System allows up to 64 zones of hard-wire, polling loop and/or wireless protection. Each zone must be assigned to a zone type, which defines the way in which the system responds to faults in that zone. In addition, there are three keypad activated zones (PANIC keys) identified as zones 95, 96 & 99, a polling loop supervision zone (zone 97) and two RF supervisory zones for each 4280 installed (zones 88-92).

TYPE 1 — ENTRY/EXIT #1

Used for the primary entry/exit route (ex: front door, main entrance). The zone becomes active when the exit delay time has elapsed. Upon entry through this zone, the system must be disarmed before the entry delay time has elapsed or else an alarm will occur. The console will beep multiple times upon entry (as a reminder to disarm the system).

TYPE 2 — ENTRY/EXIT #2

Used for a secondary entry/exit route (ex: Garage door, loading dock door, basement door), where more time might be needed to get to and from the keypad. The function of this zone type is similar to that of entry/exit #1, except that the delay times for this zone must be greater than that of #1.

TYPE 3 — PERIMETER BURGLARY

Used for exterior doors and/or windows which require an instant alarm when violated.

TYPE 4 — INTERIOR BURGLARY (FOLLOWER)

Used for areas where an entry delay is required only if an entry/exit delay zone is faulted first. Usually assigned to zones such as a foyer or lobby (containing motion detectors) through which users must pass to reach the keypad to disarm the system. If an entry/exit zone is not faulted first, an instant alarm occurs upon the faulting of the follower zone. Designed to provide instant intrusion alarm in the event an intruder hides on the premises prior to the system being armed or gains access to the premises through an unprotected area. This zone will always have the same exit delay time as programmed for entry/exit #1, and will have the same entry delay time as the entry/exit delay zone faulted first, entry/exit #1 or #2.

TYPE 5 — DAY/NIGHT BURGLARY

Used for zones which contain a foil-protected door or window (such as in a store), or to a zone covering a "sensitive" area such as a stock room, drug supply room, etc., or other controlled access area where immediate notification of an entry is desired. During the disarmed state (day), the system will provide latched Console annunciation, rapid beeping, zone ID and CHECK display, (and central station report, if desired) of openings or troubles (such as sensor malfunctions or foil breaks). During the armed state (night), violations will initiate an alarm, the internal (console) and external (if used) alarm sounders will activate, and the communicator will report alarms.

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TYPE 6

24 HOUR SILENT ALARM

This zone type is generally assigned to a zone containing a Hold-up or Panic button that is designed to initiate an alarm report to the Central Station, but which produces no visual displays or alarm sounds (ex: banks, jewelry counters). Sensors assigned to this zone, when faulted, will only initiate a programmed communicator report.

TYPE 7

24 HOUR AUDIBLE

This type also assigned to a zone containing a Panic button, but which will initiate an audible alarm in addition to an alarm report to the Central Station (ex: bedside panic). Faulting a zone of this type will initiate a loud audible alarm externally and at the console, an LCD display, and a programmed communicator report.

TYPE 8

24 HOUR AUXILIARY

This type is assigned to a zone containing a button for use in personal emergencies or to a zone containing monitoring devices such as water sensors, temperature sensors, etc. Designed to initiate an alarm report to the Central Station and only provides Console alarm sounds and alarm displays. Faulting a zone of this type will initiate a steady alarm sound at the console, an ALARM display, and a programmed communicator report.

TYPE 9

SUPERVISED FIRE

Used for zones containing smoke detectors, heat detectors, pull stations, etc. An open in this zone will initiate a trouble signal. A short in this zone will initiate a fire alarm (pulsed external sounder and report to central station).

NOTE: Zone 1 can support up to three 2-wire smoke detectors when configured for use with a 13,000 ohm EOLR. Wired zones 1 through 8 (and 10-64 if used) can support 4-wire smoke detectors when configured for EOLR's, but a manual power reset switch must be installed in order to reset the smoke detectors after an alarm. Zones 10-64 can also use individually identifiable 2-wire polling loop smoke detectors (Zones 48-55 can use wireless photoelectric smoke detectors). Zone 9 cannot be used for fire at any time. Fire zones cannot be bypassed.

TYPE 10

INTERIOR BURGLARY (DELAYED)

This type is similar to type 4, except that entry delay begins whenever sensors in this zone are violated, regardless of whether or not an entry/exit delay zone was faulted first. This zone has the same delay times as entry/exit #1 and does not become active until after the exit delay time has elapsed. Afterwards, if this zone is violated, entry time starts, and the system must be disarmed before entry time elapses or an alarm will occur.

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— H. MISCELLANEOUS ACCESSORIES —

NP1212 (YUASA)	12 volt, 1.2 AH gel cell battery.
484 (ADEMCO)	12 volt, 1.3 AH gel cell battery.
NP412 (YUASA)	12 volt, 4.0 AH gel cell battery.
12V4P (PANASONIC)	12 volt, 4.0 AH gel cell battery.
NP612 (YUASA)	12 volt, 6.0 AH gel cell battery.
12V65P (PANASONIC)	12 volt, 6.5 AH gel cell battery.
1350	Plug-in DC power pack for the 4130XM/5130XM or for providing supplemental power to 4137/5137 consoles.
1360	Plug-in DC power pack for the 4140XM only.
4130PC	DOWNLOADING software on 5-1/4" floppy disk.
4130PC-3	DOWNLOADING software on 3-1/2" floppy disk.
HAYES1200	Modem for DOWNLOADING.
4132	Battery back box for 1.2 AH battery (for 4130XM or 5130XM).
4132LG	Battery back box for 4.0 AH battery (for 4130XM or 5130XM).
4132-12	Battery Kit - includes 4132 back box and 1.2 AH battery for 4130XM/5130XM.
4132-40	Battery Kit - includes 4132LG back box and 4.0 AH battery for 4130XM/5130XM.
4134-8	Metal Cabinet (8 inch) w/Terminal Strip for 4130XM/5130XM
4134-12	Metal Cabinet (12 inch) w/Relay Module (No. 4148) and terminal strip for 4130XM/5130XM.
4134-15	Metal Cabinet (12 inch) for 4130XM/5130XM.

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4133 — **ROUGH-IN RING**

- Pre-wire rough-in ring, used in new construction to designate where the plasterboard (for later mounting of a 4130XM, 5130XM, 4137, or 5137) is to be cut, before the walls are up.

4136 — **ROUGH-IN RING COVER PLATE**

- Blank metal cover plate for the No. 4133 rough-in ring. Use this plate to cover the hole after the walls are up, until the Control or console is mounted.

4141-15 (4141-30) — **WIRING HARNESS**

- 15' (30') wiring harness for the self-contained VISTA XM Controls. Use this harness to remote your field connections rather than terminating directly behind the control panel. Use with the No. 4145 Splice Box Kit.

4143 — **EXPANSION RING**

- Expansion Ring ("Belly Band") for surface mounting the self-contained VISTA XM Control with the dialer board and 4152LMB connected.

4144 — **TERMINAL STRIP**

- Plug-in terminal strip for the 4130XM or 5130XM, can be used in place of the harness.

4145 — **SPLICE BOX KIT**

- Recommended for use with the 4141-15 or 4141-30 harness. The kit includes a No. 205 8" x 10" x 3" metal cabinet, a No. 207 adapter plate, and two No. 312 terminal strips.

4148 — **SIREN RELAY MODULE**

- SPDT relay module, rated for 2.8 amps @ 28 VDC, for use with the self-contained VISTA XM Controls when either a No. 702 or No. 719 is desired. This relay is also used in the 4134-12 cabinet and the 4149 Siren Junction Kit.

4171TR — **AUXILIARY VOLTAGE TRIGGER WIRING HARNESS**

- 5-wire harness required for connection to the 4171XT-XM auxiliary trigger outputs.

659EN — **TELEPHONE LINE FAULT MONITOR**

675 — **GROUND START MODULE**

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SECTION IV
SYSTEM CONFIGURATION (ZONES)

— A. BASIC 9 HARD-WIRED ZONES —

GENERAL INFORMATION

The standard system supports up to 9 hard-wired zones. Zones 1-8 can be either supervised (using EOLRs) or unsupervised, and zone 1 can support 2-wire smoke detectors. Zone 9 is used for fast response devices and is unsupervised.

ZONE 1

This zone has a 350 millisecond response and can be assigned to any zone type and can be set up for EOLR supervision or for closed-circuit unsupervised use. This zone is the only zone that can support 2-wire smoke detectors (up to 3 detectors) using an EOLR configuration.

If EOLR supervision is required, connect all closed-circuit sensors in series with one another to TB1-2, (4130XM/5130XM use RED/YELLOW & WHITE/BROWN wires) with the 13,000 ohm resistor in series with the loop, at the last device and then return the loop to TB2-4.

If no supervision is required, simply maintain a closed loop with all sensors connected in series with the loop, between TB1-1 and TB1-2 (or WHITE/BROWN & ORANGE). If the sensors used are open-circuit devices, such as smoke detectors, each one must be in parallel to the next using the EOLR configuration. The EOLR must then be placed across the last wired detector, as shown:

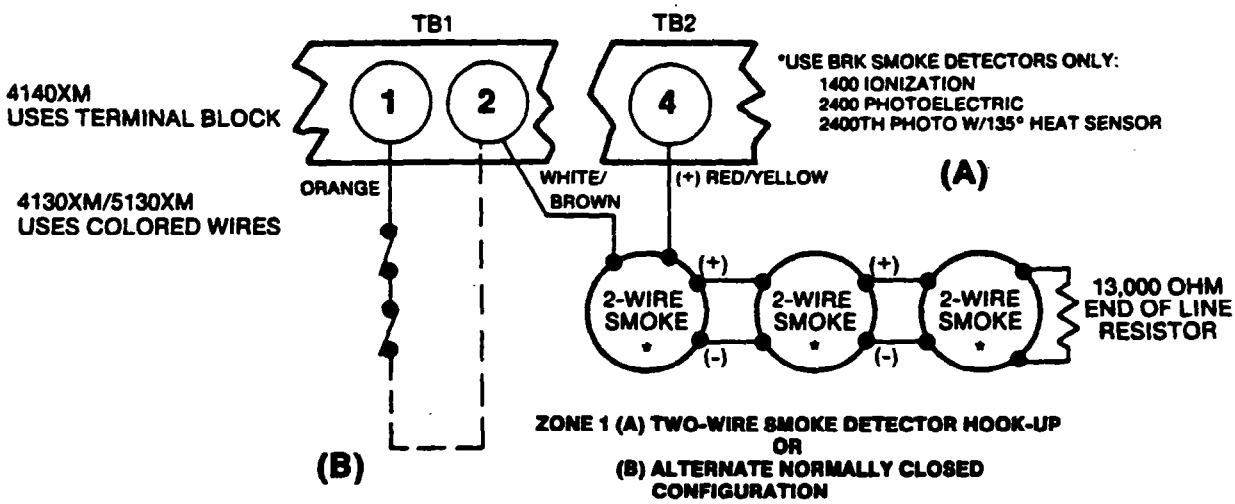

Diagram 1. 2-WIRE SMOKE DETECTOR HOOK-UP

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ZONES 2 THROUGH 8

These zones have a 350 millisecond response and can be assigned to any zone type. They can be EOLR supervised or closed circuit unsupervised, as required (program field *41 determines whether or not these zones will use the 1,000 ohm EOLR: Enter [1] in field *41 to disable the use of EOLR's on zones 2 through 8). If programmed for use with EOLR's, both closed-circuit and open-circuit devices can be used with the 1,000 ohm EOLR resistor in series with the loop at the last device, as shown in A below. If the use of EOLR's is disabled (*41=1), only closed-circuit devices can be used, as shown in B below. Note that the maximum resistance per zone is 300 ohms.

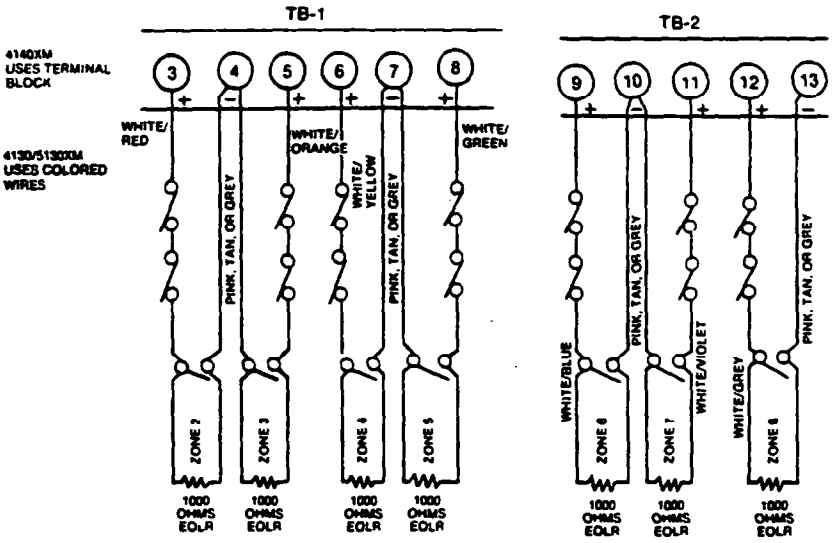

Diagram 2A. ZONES 2-8 EOLR SUPERVISED CONFIGURATION

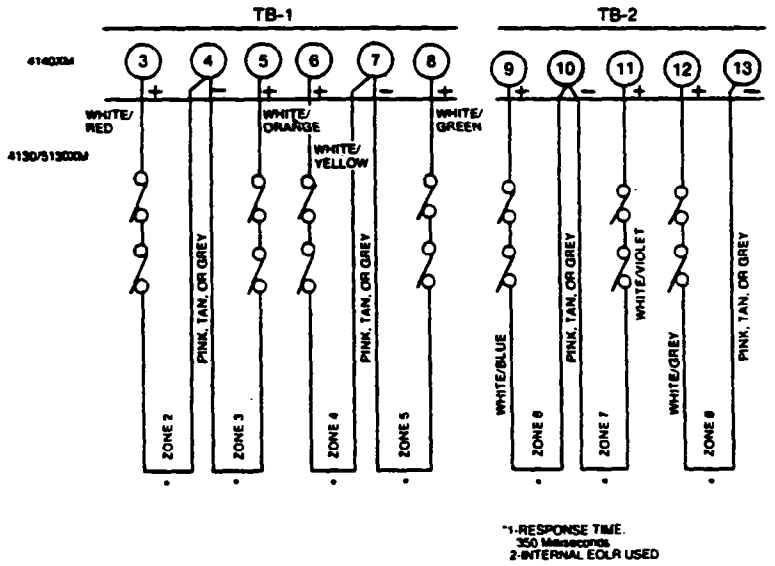

Diagram 2B. ZONES 2-8 CLOSED-CIRCUIT UNSUPERVISED CONFIGURATIONS

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ZONE 9

This zone is an unsupervised, fast response zone (5-10 milliseconds), and can be assigned to any zone type except fire. Only closed-circuit devices can be used in this zone. This zone should be used for fast response devices such as fast acting glass break sensors or vibration sensors. Avoid using mechanical magnetic or relay type contacts in this zone. Note that the maximum resistance for this zone is 100 ohms.

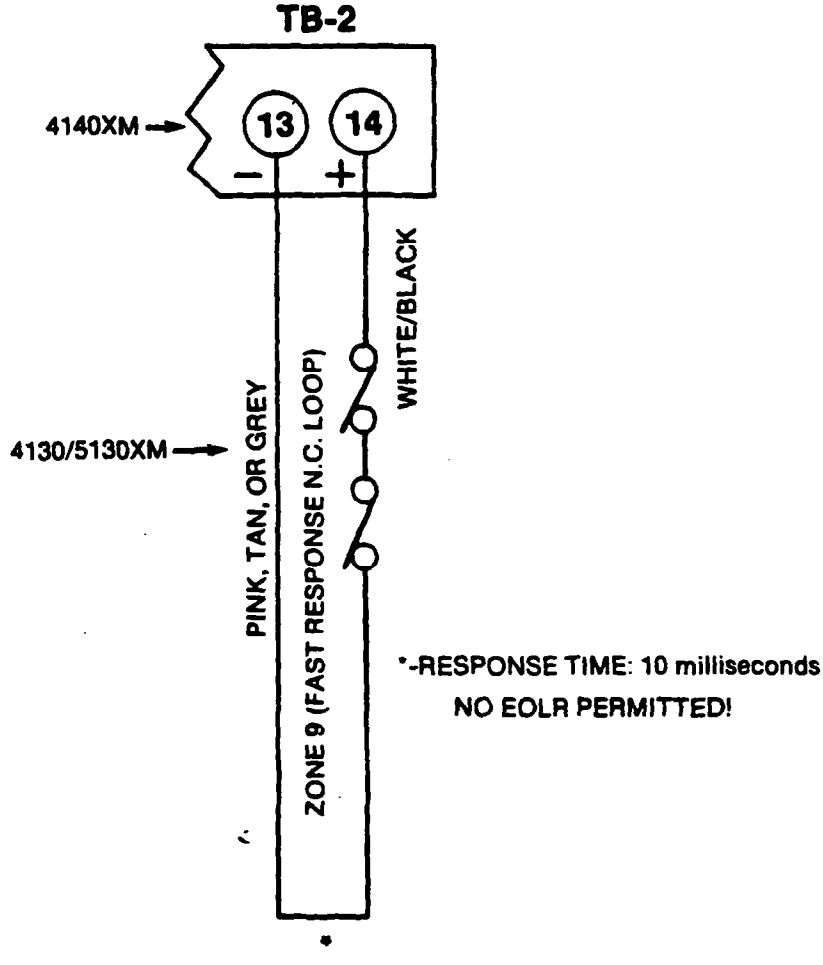

Diagram 3. ZONE 9 FAST RESPONSE - UNSUPERVISED ONLY

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— B. ZONE EXPANSION MODULE—
(Required for zones 10 through 64)

GENERAL INFORMATION

To expand the system using a 2-wire Polling Loop and/or wireless devices, a 4171XT-XM dialer board, and a 4152LMB Loop Module must be installed as shown below. (The 4171XT-XM is factory installed in the 4140XM.)

4171XT-XM INSTALLATION

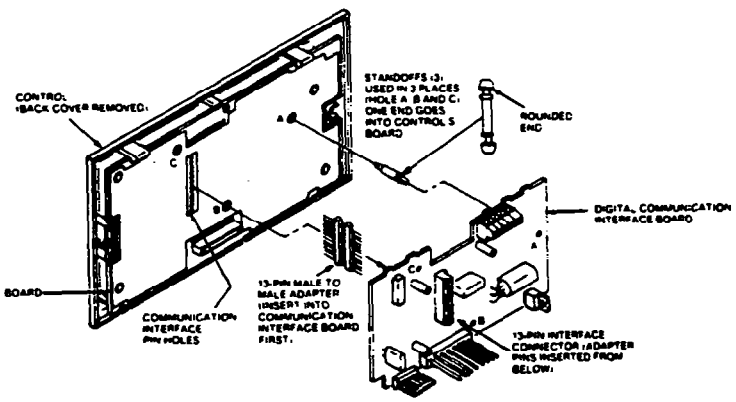
Remove the Control's back cover and discard. Insert three small standoffs (supplied) into the three holes on the Control board (marked A, B & C on the diagram), pressing each until they "snap" into place. Insert the 13-pin male-to-male adapter (supplied) into the interface socket pin holes on the underside of the Dialer board as shown.

Guide the adapter pins into the pin holes on the Control bvoard, while aligning the standoffs with their respective holes in the Dialer board. Be sure the adapter pins are properly entering the Control board holes, and press down until the pins are fully seated and the standoffs "snap" into place.

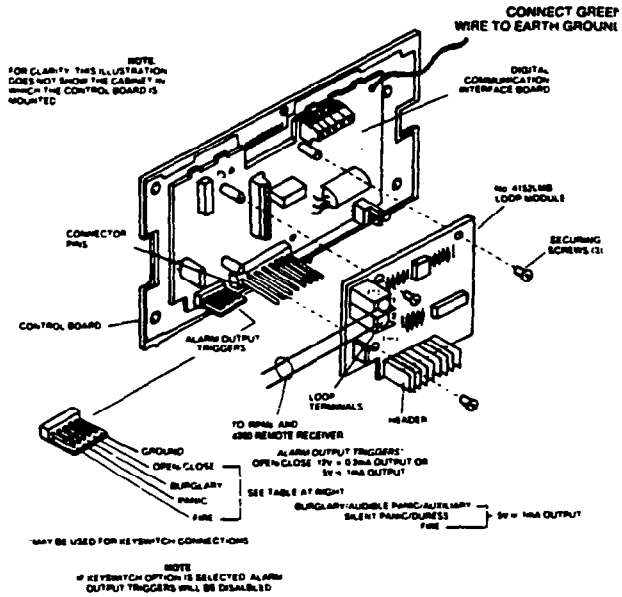
4152LMB INSTALLATION

Note the 8 square-shaped connector pins on the dialer board. Position the 4152LMB board over that board so that these pins engage the mating sockets (header) on the underside of the 4152LMB. Press the 4152LMB down until the pins are fully seated. Secure the No. 4152LMB by means of 3 screws (supplied).

Wires from the 4208 Zone Expander, RPMs, and 4280 are connected to Terminals 1 & 2 on the 4152LMB. For information regarding polling loop or wireless expansion, refer to those sections which follow.


CONTROL (BACK COVER REMOVED)
STANDOFFS (3) USED IN 3 PLACES (HOLE A, B AND C). ONE END GOES INTO CONTROL'S BOARD
ROUNDED END
DIGITAL COMMUNICATION INTERFACE BOARD
BOARD
COMMUNICATION INTERFACE PIN HOLES
13-PIN MALE TO MALE ADAPTER INSERT INTO COMMUNICATION INTERFACE BOARD FIRST.
13-PIN INTERFACE CONNECTOR (ADAPTER PINS INSERTED FROM BELOW)

INSTALLING DIALER BOARD



INSTALLING LOOP MODULE

Diagram 4. 4152LMB INSTALLATION AND WIRING

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— C. 2-WIRE POLLING LOOP EXPANSION — (ZONES 10 THROUGH 64)

GENERAL INFORMATION

To expand the system using a 2-wire polling loop and remote point modules (RPMs), a 4171XT-XM dialer board, and a 4152LMB loop module must be installed, as described in the ZONE EXPANSION MODULE section.

Any of the RPMs can be used, in any combination, to expand the system to a maximum of 64 zones. For a complete list of available devices, see the HARDWARE OVERVIEW section

The polling loop can be run in various ways, as shown. Choose the way that best suits your needs, but make sure that polarity is correct throughout the system. If polarity is reversed at any point, a "Loop short" will occur (displayed as "97"). Calculate the total current required by completing the Polling Loop Current Draw Worksheet found in the Summary of Connections section.

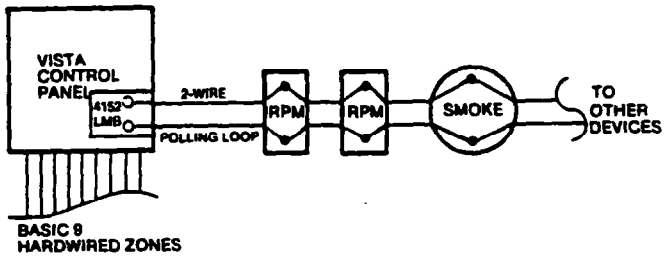

Diagram 5A. ZONE EXPANSION USING RPMs

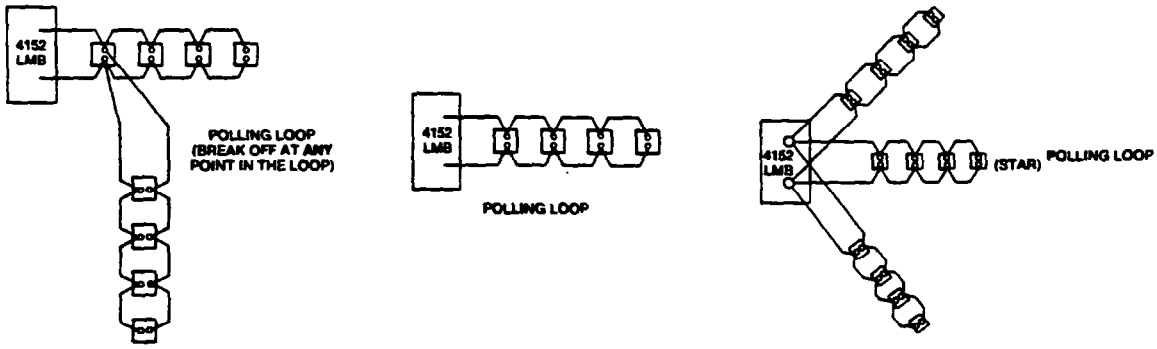

Diagram 5B. VARIOUS POLLING LOOP CONFIGURATIONS

Wire each of the RPMs in parallel to the 2-wire polling loop, making sure no more than the maximum allowable wire length is used per individual polling loop run, as follows:

#22 gauge @ 650' max

#20 gauge @950' max

#18 gauge @1500' max

#16 gauge @2400' max

NOTE: Twisted pair recommended for all normal wire runs.

IMPORTANT: The maximum combined polling loop run is 4000'. If using shielded wire, the maximum.is 2000'. If longer wire runs are needed, a 4197 Loop Extender module must be used.

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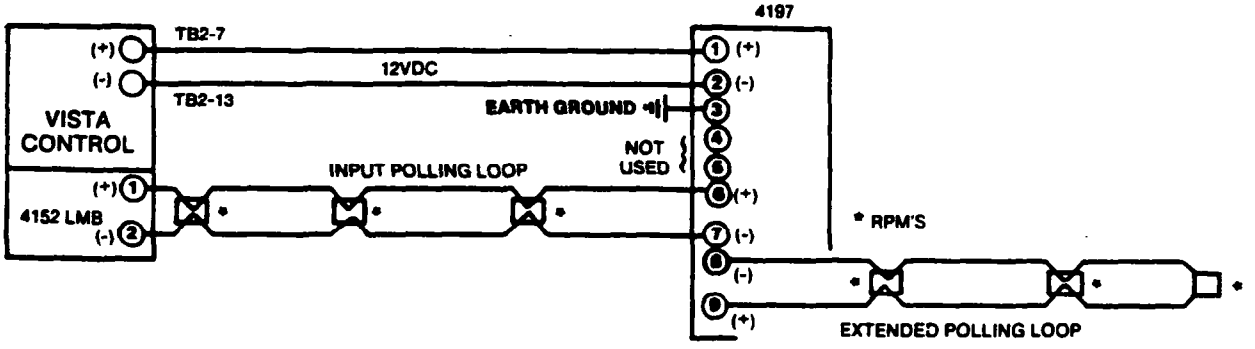
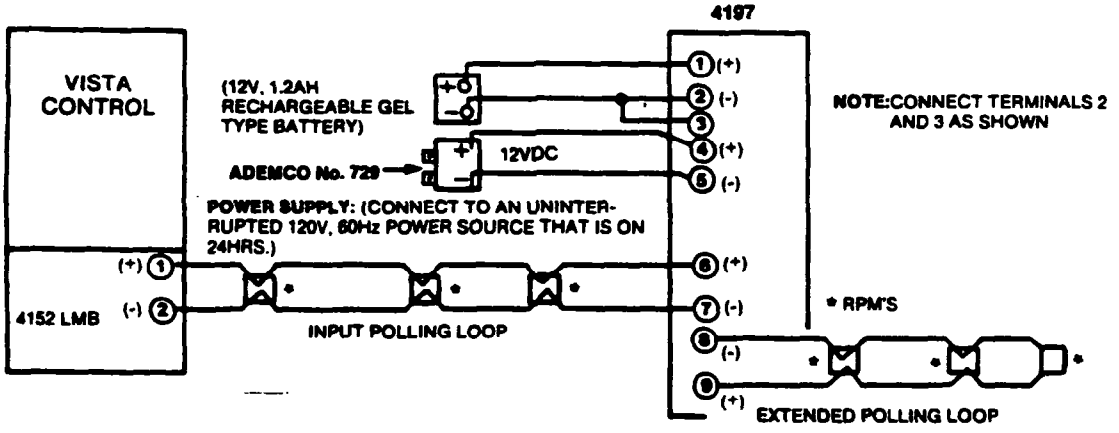
4197 LOOP EXTENDER

If longer polling loop wire runs are needed or more than 64mA current is being drawn on the polling loop, a 4197 Loop Extender Module must be used. Diagram 6 shows typical connections. Note that power from a local power supply is not approved for UL installation.



4197 POLLING EXTENDER POWERED FROM PANEL


4197
VISTA CONTROL
(12V, 1.2AH RECHARGEABLE GEL TYPE BATTERY)
ADEMCO No. 729
12VDC
POWER SUPPLY: (CONNECT TO AN UNINTERRUPTED 120V, 60Hz POWER SOURCE THAT IS ON 24HRS.)
NOTE:CONNECT TERMINALS 2 AND 3 AS SHOWN
4152 LMB
INPUT POLLING LOOP
* RPM'S
EXTENDED POLLING LOOP

4197 POWERED FROM LOCAL POWER SUPPLY AND BATTERY

Diagram 6. 4197 POWER CONNECTIONS

NOTE: Twisted pair recommended for all normal wire runs.

CAUTION: If an intercom system is being used, the polling loop wires must be as far from the intercom wiring as possible (minimum 6"). If this spacing cannot be achieved, shielded wire must be used. If this is not done, interference on the intercom system might occur. Also note that the maximum total wire length supported is cut in half when shielded wire is used.

ADVISORY

The maximum allowable current draw on the polling loop is 64mA. Refer to the Polling Loop Current Draw Worksheet (found in the SUMMARY OF CONNECTIONS section) for current draws of various polling loop devices. If more than 64mA is being drawn, use of the 4197 provides another loop with 64mA available.

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SETTING UP A 4190WH

The 4190WH is a 2-zone (known as left and right zones) RPM. The left zone can be used for closed-circuit devices, with or without EOLR supervision, and for open-circuit devices, with EOLR supervision. The left zone can also be used with fast-response (10 millisecond) devices, if necessary. Follow the chart below for cutting the correct jumpers and choosing the correct resistor when using the left zone.

The right zone is for closed-circuit, unsupervised use only, and has a response time of 400 milliseconds. Do not cut any jumpers or use a resistor on this zone.

JUMPERS	USAGE (LEFT ZONE ONLY)
RED:	Cut for fast-response (10 millisecond).
WHITE:	Cut for low current mode (reed type switches); use the 30,000 ohm resistor, provided. Must be cut if BLUE jumper is cut.
BLUE:	Cut for use with no EOLR (closed-circuit only). Doing this automatically puts an internal 30,000 ohm resistor in series with the zone, *so the white jumper must also be cut.*
NONE CUT:	High current mode: Use the 4,700 ohm resistor, provided, with mechanical switches in either an open-circuit or closed-circuit configuration.

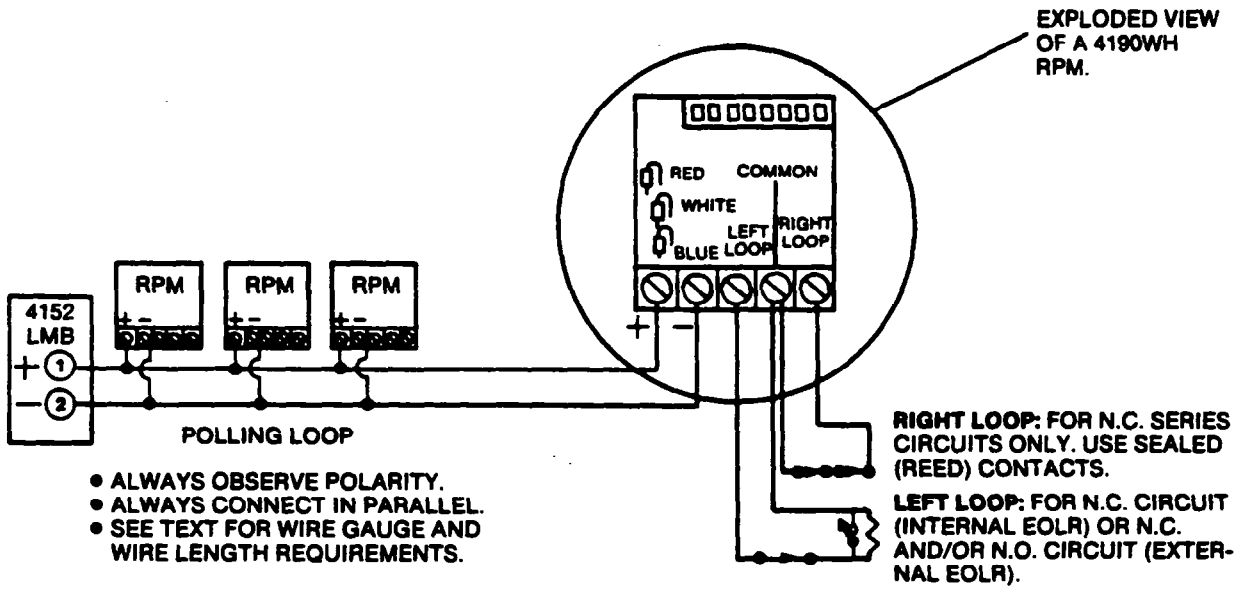

Diagram 7. 4190WH LEFT/RIGHT ZONES

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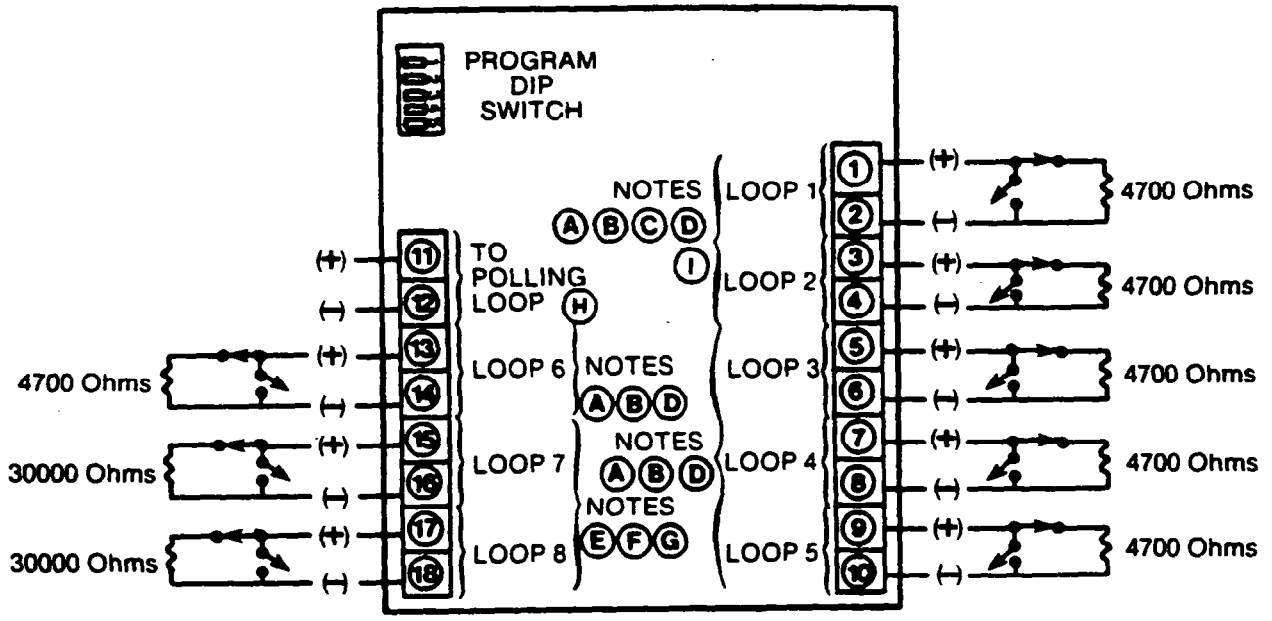
SETTING UP THE 4208

The 4208 is an 8 zone RPM which is connected directly to the polling loop. Each zone is end-of-line-resistor supervised and can be used with either open-circuit or closed-circuit devices. Zone numbers used with the 4208 are pre-assigned in groups of 8 (except the first group) beginning with zone 10, and are set via the unit's DIP switches. Note that if more than one 4208 is used, the system limits the number of zones supported by the first group of addresses to 7 (zones 10-16 available). If *only one* 4208 is used, the first group of addresses can be expanded to 8 zones (zones 10-17 available) by entering a 1 in program field *86. See the PROGRAMMING section for information regarding this programming option. See the PROGRAMMING section for information regarding the use of more than one 4208.

The first two zones are DIP switch programmable for fast response (10 millisecond). Zones connected to this module are factory set for 400 millisecond response. The first six zones are high current zones for use with mechanical sensors. The last two zones can support only low current sensors (reed switches, etc.).

IMPORTANT!: The 4208 does not support 2-wire smoke detectors.



NOTES:

A. Uses both sealed (reed) and unsealed (mechanical) contacts.
B. Requires an external 4700 Ohm end-of-line resistor (small ¼ watt, YELLOW-VIOLET-RED color bands).
C. Selectable fast or slow response (both loops as a pair).
D. Uses 1 milliamp of current each.
E. Uses only sealed (reed) contacts.
F. Requires an external 30,000 Ohm end-of-line resistor (large, ½ watt, ORANGE-BLACK-ORANGE color bands).
G. Uses 100 microamps of current each.
H. Make certain that the maximum current from the control's polling loop is not exceeded.
I. If set for zones 9-16, loop #1 is lost on the 4208.

Diagram 8. 4208 SUMMARY OF CONNECTIONS

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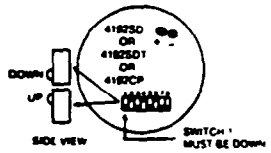
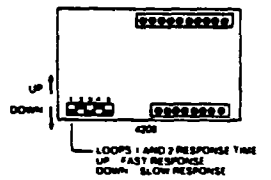
TABLE 1. DIP SWITCH TABLES FOR POLLING LOOP DEVICES

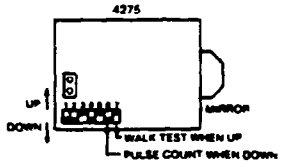


DEVICE ADDRESS NUMBER	DIP SWITCH POSITION					
	3	4	5	6	7	8
10	on	on	UP	on	UP	on
11	on	on	UP	on	UP	UP
12	on	on	UP	UP	on	on
13	on	on	UP	UP	on	UP
14	on	on	UP	UP	UP	on
15	on	on	UP	UP	UP	UP
16	on	UP	on	on	on	on
17	on	UP	on	on	on	UP
18	on	UP	on	on	UP	on
19	on	UP	on	on	UP	UP
20	on	UP	on	UP	on	on
21	on	UP	on	UP	on	UP
22	on	UP	on	UP	UP	on
23	on	UP	on	UP	UP	UP
24	on	UP	UP	on	on	on
25	on	UP	UP	on	on	UP
26	on	UP	UP	on	UP	on
27	on	UP	UP	on	UP	UP
28	on	UP	UP	UP	on	on
29	on	UP	UP	UP	on	UP
30	on	UP	UP	UP	UP	on
31	on	UP	UP	UP	UP	UP
32	UP	on	on	on	on	on
33	UP	on	on	on	on	UP
34	UP	on	on	on	UP	on
35	UP	on	on	on	UP	UP
36	UP	on	on	UP	on	on
37	UP	on	on	UP	on	UP
38	UP	on	on	UP	UP	on
39	UP	on	on	UP	UP	UP
40	UP	on	UP	on	on	on
41	UP	on	UP	on	on	UP
42	UP	on	UP	on	UP	on
43	UP	on	UP	on	UP	UP
44	UP	on	UP	UP	on	on
45	UP	on	UP	UP	on	UP
46	UP	on	UP	UP	UP	on
47	UP	on	UP	UP	UP	UP
48	UP	UP	on	on	on	on
49	UP	UP	on	on	on	UP
50	UP	UP	on	on	UP	on
51	UP	UP	on	on	UP	UP
52	UP	UP	on	UP	on	on
53	UP	UP	on	UP	on	UP
54	UP	UP	on	UP	UP	on
55	UP	UP	on	UP	UP	UP
56	UP	UP	UP	on	on	on
57	UP	UP	UP	on	on	UP
58	UP	UP	UP	on	UP	on
59	UP	UP	UP	on	UP	UP
60	UP	UP	UP	UP	on	on
61	UP	UP	UP	UP	on	UP
62	UP	UP	UP	UP	UP	on
63	UP	UP	UP	UP	UP	UP

Address 64: See 4196

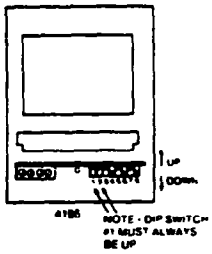


DEVICE ADDRESS NUMBER	DIP SWITCH POSITION				
	2	3	4	5	
10-17	UP	UP	UP	on	
10-16	on	on	on	UP	
17-24	on	on	UP	on	
25-32	on	on	UP	UP	
33-40	on	UP	on	on	
41-48	on	UP	on	UP	
49-56	on	UP	UP	on	
57-64	on	UP	UP	UP	



DEVICE ADDRESS NUMBER	DIP SWITCH POSITION				
	1	2	3	4	5
10	on	UP	on	UP	on
11	on	on	UP	on	UP
12	on	UP	UP	on	on
13	on	UP	UP	on	UP
14	on	UP	UP	UP	on
15	on	UP	UP	UP	UP
16	UP	on	on	on	on
17	UP	on	on	on	UP
18	UP	on	on	UP	on
19	UP	on	on	UP	UP
20	UP	on	UP	on	on

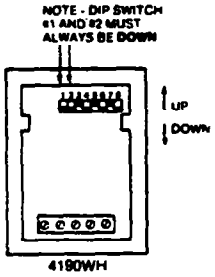
DEVICE ADDRESS NUMBER	DIP SWITCH POSITION				
	1	2	3	4	5
21	UP	on	UP	on	UP
22	UP	on	UP	UP	on
23	UP	on	UP	UP	UP
24	UP	UP	on	on	on
25	UP	UP	on	on	UP
26	UP	UP	on	UP	on
27	UP	UP	on	UP	UP
28	UP	UP	UP	on	on
29	UP	UP	UP	on	UP
30	UP	UP	UP	UP	on
31	UP	UP	UP	UP	UP



TRANSMITTER ID	DIP SWITCH SETTINGS					
	3	4	5	6	7	8
10	UP	UP	on	UP	on	UP
11	UP	UP	on	UP	on	on
12	UP	UP	on	on	UP	UP
13	UP	UP	on	on	UP	on
14	UP	UP	on	on	on	UP
15	UP	UP	on	on	on	on
16	UP	on	UP	UP	UP	UP
17	UP	on	UP	UP	UP	on
18	UP	on	UP	UP	on	UP
19	UP	on	UP	UP	on	on
20	UP	on	UP	on	UP	UP
21	UP	on	UP	on	UP	on
22	UP	on	UP	on	on	UP
23	UP	on	UP	on	on	on
24	UP	on	on	UP	UP	UP
25	UP	on	on	UP	UP	on
26	UP	on	on	UP	on	UP
27	UP	on	on	UP	on	on
28	UP	on	on	on	UP	UP
29	UP	on	on	on	UP	on
30	UP	on	on	on	on	UP
31	UP	on	on	on	on	on
32	on	UP	UP	UP	UP	UP
33	on	UP	UP	UP	UP	on
34	on	UP	UP	UP	on	UP
35	on	UP	UP	on	UP	UP
36	on	UP	UP	on	UP	on
37	on	UP	UP	on	on	UP

TRANSMITTER ID	DIP SWITCH SETTINGS					
	3	4	5	6	7	8
38	on	UP	UP	on	on	UP
39	on	UP	UP	on	on	on
40	on	UP	on	UP	UP	UP
41	on	UP	on	UP	UP	on
42	on	UP	on	UP	on	UP
43	on	UP	on	UP	on	on
44	on	UP	on	on	UP	UP
45	on	UP	on	on	UP	on
46	on	UP	on	on	on	UP
47	on	UP	on	on	on	on
48	on	on	UP	UP	UP	UP
49	on	on	UP	UP	UP	on
50	on	on	UP	UP	on	UP
51	on	on	UP	UP	on	on
52	on	on	UP	on	UP	UP
53	on	on	UP	on	UP	on
54	on	on	UP	on	on	UP
55	on	on	UP	on	on	on
56	on	on	on	UP	UP	UP
57	on	on	on	UP	UP	on
58	on	on	on	UP	on	UP
59	on	on	on	UP	on	on
60	on	on	on	on	UP	UP
61	on	on	on	on	UP	on
62	on	on	on	on	on	UP
63	on	on	on	on	on	on

	2	3	4	5	6	7	8
64	on	UP	UP	UP	UP	UP	UP



DEVICE ADDRESS NUMBER	DIP SWITCH POSITION					
	3	4	5	6	7	8
10	on	on	UP	on	UP	on
11	on	on	UP	on	UP	UP
12	on	on	UP	UP	on	on
13	on	on	UP	UP	on	UP
14	on	on	UP	UP	UP	on
15	on	on	UP	UP	UP	UP
16	on	UP	on	on	on	on
17	on	UP	on	on	on	UP
18	on	UP	on	on	UP	on
19	on	UP	on	on	UP	UP
20	on	UP	on	UP	on	on
21	on	UP	on	UP	on	UP
22	on	UP	on	UP	UP	on
23	on	UP	on	UP	UP	UP
24	on	UP	UP	on	on	on
25	on	UP	UP	on	on	UP
26	on	UP	UP	on	UP	on
27	on	UP	UP	on	UP	UP
28	on	UP	UP	UP	on	on
29	on	UP	UP	UP	on	UP
30	on	UP	UP	UP	UP	on
31	on	UP	UP	UP	UP	UP
32	UP	on	on	on	on	on
33	UP	on	on	on	on	UP
34	UP	on	on	on	UP	on
35	UP	on	on	on	UP	UP
36	UP	on	on	UP	on	on
37	UP	on	on	UP	on	UP

DEVICE ADDRESS NUMBER	DIP SWITCH POSITION					
	3	4	5	6	7	8
38	UP	on	on	UP	UP	on
39	UP	on	on	UP	UP	UP
40	UP	on	UP	on	on	on
41	UP	on	UP	on	on	UP
42	UP	on	UP	on	UP	on
43	UP	on	UP	on	UP	UP
44	UP	on	UP	UP	on	on
45	UP	on	UP	UP	on	UP
46	UP	on	UP	UP	UP	on
47	UP	on	UP	UP	UP	UP
48	UP	UP	on	on	on	on
49	UP	UP	on	on	on	UP
50	UP	UP	on	on	UP	on
51	UP	UP	on	on	UP	UP
52	UP	UP	on	UP	on	on
53	UP	UP	on	UP	on	UP
54	UP	UP	on	UP	UP	on
55	UP	UP	on	UP	UP	UP
56	UP	UP	UP	on	on	on
57	UP	UP	UP	on	on	UP
58	UP	UP	UP	on	UP	on
59	UP	UP	UP	on	UP	UP
60	UP	UP	UP	UP	on	on
61	UP	UP	UP	UP	on	UP
62	UP	UP	UP	UP	UP	on
63	UP	UP	UP	UP	UP	UP

Address 64: See 4196

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— D. WIRELESS ZONE EXPANSION — (ZONES 1 THROUGH 63)

GENERAL INFORMATION

To expand the system using ALERT III wireless transmitters, a 4171XT-XM dialer board, and a 4152LMB loop module must be installed, as described in the ZONE EXPANSION MODULE section, and either one or two 4280s (or 4280-8s, if only 8 wireless zones are required) must be connected to the polling loop. Note that the 4280 draws 40mA current. If two receivers are used, power for the second receiver should be taken from the auxiliary power connection on the main Control.

NOTE: Unless stated otherwise, references to the 4280 Receiver represent the 4280 and/or 4280-8 Receivers.

The 4280 RF receiver is a component of the VISTA XM system which recognizes alarms, status messages and keypad control messages from ALERT III transmitters at 345MHz (U.S.A.). These messages are processed and relayed to the VISTA XM control panel via a 2-wire polling loop. Using a 4280 allows expansion of up to 63 RF zones, plus a wireless keypad (5727).

RANGE

The 4280 RF receiver can receive signals from wireless transmitters within a nominal range of 200 feet. This gives you greater expandability in installations where hard wire might not be feasible.

SUPERVISION

Each transmitter (except 5701 and 5727) is supervised by a check-in signal that is sent to the receiver at 70-90 minute intervals. If at least one Check-in is not received from a transmitter within a programmed interval, the keypad will display the transmitter number and "CHECK" will be displayed. See the section under PROGRAMMING RF OPTIONS, 1*31, for this selection.

Each transmitter (including 5701 and 5727) is also supervised for low battery conditions, and will transmit a low battery signal to the 4280 when the battery has approximately 30 days of life remaining. See PROGRAMMING RF OPTIONS, 1*28, for LOW BATTERY AUDIBLE ANNUNCIATION selection.

NOTE: After replacing a low or dead battery, activate the transmitter and enter the security code + OFF to clear its memory of the "Low Battery" signal.

The 4280 itself is also supervised three ways:

1. If the cover of the 4280 is removed, an ALARM or TROUBLE will be displayed depending upon the response programmed in fields 1*08 and 1*09.
2. If the connection is broken between the 4280 and the control panel, an ALARM or TROUBLE will be displayed depending on the response programmed in programming fields 1*08 & 1*09. This response is usually that of a DAY/NIGHT or 24 hour type.
3. If, within a programmed interval of time, the 4280 does not hear from *any* of its transmitters, an ALARM or TROUBLE will be displayed depending on the response programmed in fields 1*08 & 1*09. The interval is programmed in 1*30.

HOUSE IDENTIFICATION

The 4280 responds only to transmitters with the same house ID (DIP switch programmable from 01-31). This prevents system interference from transmitters in other nearby systems. To make sure you do not choose a House ID that is in use nearby, put the system in the Sniffer Mode, which is described later in this section.

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TRANSMITTER IDENTIFICATION

Each transmitter has its own unique ID number (Zone #), which is DIP switch programmable in each unit. Whenever a transmission takes place, either for an alarm, fault, check-in or low battery, this ID number is sent along with the message to the 4280 which, in turn, relays this information to the control panel, which displays the condition and zone number on the keypad. See the DIP switch selection chart at the end of this section, for individual transmitter settings.

SNIFFER MODE

To check for house IDs being used in nearby systems, set the DIP switches in the 4280 for a House ID of "00" (all switches up), then enter your "Installer Code" + [#] + [2]. The 4280 will now "sniff" out any House IDs in the area and display them. Keeping the 4280 in this mode for about 2 hours will give a good indication of the house ID's being used. To exit the Sniffer Mode, simply key your installer code + OFF, then set your house ID to one not displayed in the "Sniffer Mode".

To check that all transmitters have been set for the proper house ID, set the 4280 to the proper house ID and enter the Installer code + [#] + [3]. All transmitter ID numbers that have the house ID set for the 4280 will be displayed when each transmitter number checks in (up to 2 hours). A faster way to do this is to fault each transmitter, which causes a transmission to be sent to the 4280. Check that the ID number is displayed when the transmitter is faulted.

BUILT-IN "GO/NO GO" TEST MODE (Patented)

This mode helps determine the best location for each transmitter and is activated by putting the system in the TEST mode and removing the 4280's cover. The receiver's sensitivity is reduced by half. Once transmitters are placed in their desired locations and the approximate length of wire to be run to sensors is connected to the transmitter's screw terminals, open circuit each transmitter. *Do not conduct this test with your hand wrapped around the transmitter.*

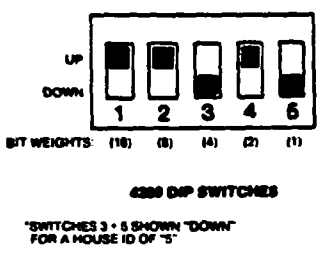
If a single 4280 is used, the keypad will beep three times to indicate signal reception. If two 4280s are used, the keypad will beep once if the first 4280 received the signal, twice if the second 4280 received the signal and three times if both receivers heard the signal (which is desirable for redundant configurations).

If the keypad does not beep, reorient or move the transmitter to another location.

To exit this mode, replace the 4280's cover, then enter the installer code and press OFF. Note that the Receiver's sensitivity is fully restored when the cover is replaced.

4280 SET-UP ERRORS

All RF zones must be designated as such in their respective programming fields. If using a 4280-8, *only* up to 8 zones can be enabled as RF zones. If more than 8 zones are enabled, the message "SET-UP ERROR" (5130XM/5137) or "E8" (4130XM/4137) will be displayed.



4280 DIP SWITCHES

"SWITCHES 3 - 5 SHOWN "DOWN" FOR A HOUSE ID OF "5"

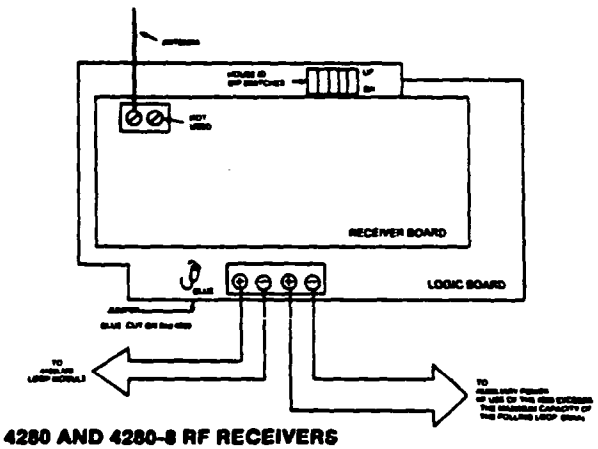


Diagram 9. 4280 AND 4280-8 RF RECEIVERS

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ADVISORIES

1. Do not place transmitters on or near metal objects. This will decrease range and/or block transmissions.
2. Place the 4280 in a high, centrally located area for best reception. Do not place receiver on or near metal objects.
3. The 4280 receiver must be at least 10 feet from the Control panel or any remote consoles to avoid interference from their microprocessor.
4. When connecting a door/window contact to a 5711, 5711WM, or 5715 transmitter, avoid a wire length of 20-24 inches. This particular length decreases range. A shorter or longer length has no effect.

WIRELESS ZONE TYPES

Each RF zone can be programmed to respond as any zone type such as ENTRY/EXIT, INTERIOR, PERIMETER, etc. (see the section under ZONE TYPES for a complete explanation of each zone type). Desired alarm responses can be broken down as follows:

ZONE TYPE	TRANSMITTERS ID #
Entry/Exit Burg	1 through 63 *
Perimeter Burg	1 through 63 *
Interior Burg	1 through 63 *
	32 through 47 * (5775)
Fire	1 through 63 *(5715)
	48 through 55 ** (5706)
24 Hour Panic (silent or audible)	1 through 63*
	62 or 63 *** (5701)
Day/Night Burglary	1 through 63 *
24 Hour Auxiliary	1 through 63 *

NOTES:

* Transmitters set for an ID of 32 through 47 will have a 3 minute lock-out between transmissions.

** Transmitter ID's 48 through 55 have highest signal priority.

*** Transmitter ID's 62 and 63 are unsupervised to allow removal of the 5701 off premises -- signal priority is lower than that of fire, but higher than burglary.

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SINGLE RECEIVER

A single 4280 RF receiver can uniquely identify up to 64 transmitters within a nominal 200' range, without the work of hard-wiring a large premises, and is suitable for many installations.

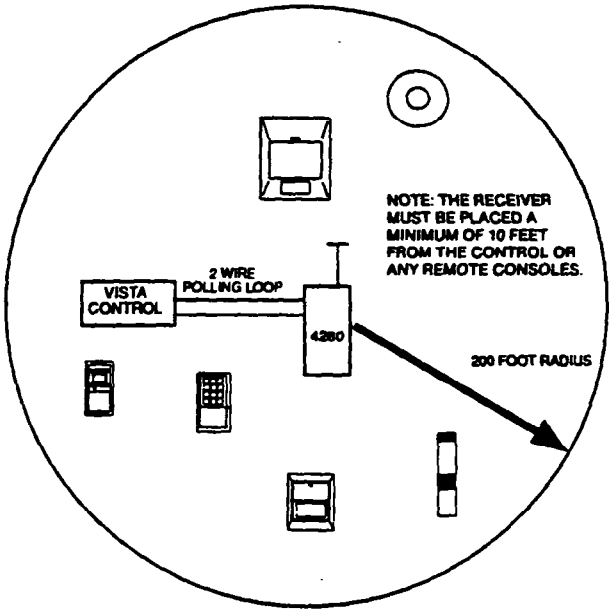
NOTE: THE RECEIVER MUST BE PLACED A MINIMUM OF 10 FEET FROM THE CONTROL OR ANY REMOTE CONSOLES.
2 WIRE POLLING LOOP
VISTA CONTROL
4280
200 FOOT RADIUS

Diagram 10. SINGLE WIRELESS RECEIVER CONFIGURATION

USING TWO RECEIVERS FOR REDUNDANCY

For additional security, some installations might warrant a redundant configuration. This means that 2 receivers, connected to the same 2-wire polling loop, are used and set to the same house ID. Each of these receivers listens to all of the transmitters on the job, but if one receiver happens to fail or is sabotaged, or a path from one or more transmitters is inadvertently blocked by a metal object, the other one will still be there to detect alarms, and faults, and to supervise the transmitters. Both 4280s (or 4280-8s) are fully supervised so that if one does fail or is deliberately sabotaged, you'll know about it.

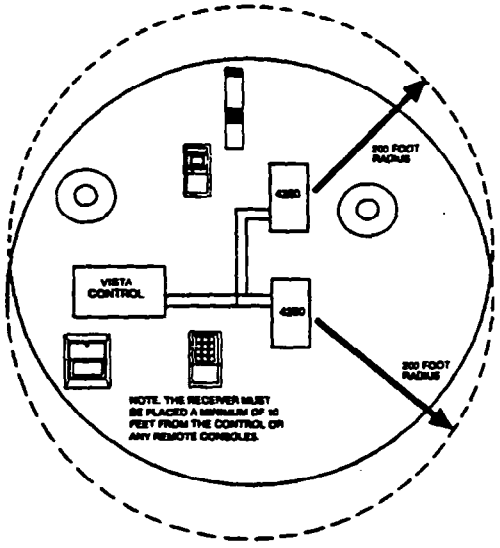

Diagram 11. TWO WIRELESS RECEIVERS REDUNDANT CONFIGURATION

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USING TWO RECEIVERS TO INCREASE COVERAGE

For installations where the area to be protected goes well beyond the 200' range of the system, or the building configuration prevents getting the rated range in all paths to transmitters, a second receiver can be installed. The first 4280 is located at one end of the premises and the second 4280 at the other with both 4280s connected to the same 2-wire polling loop.

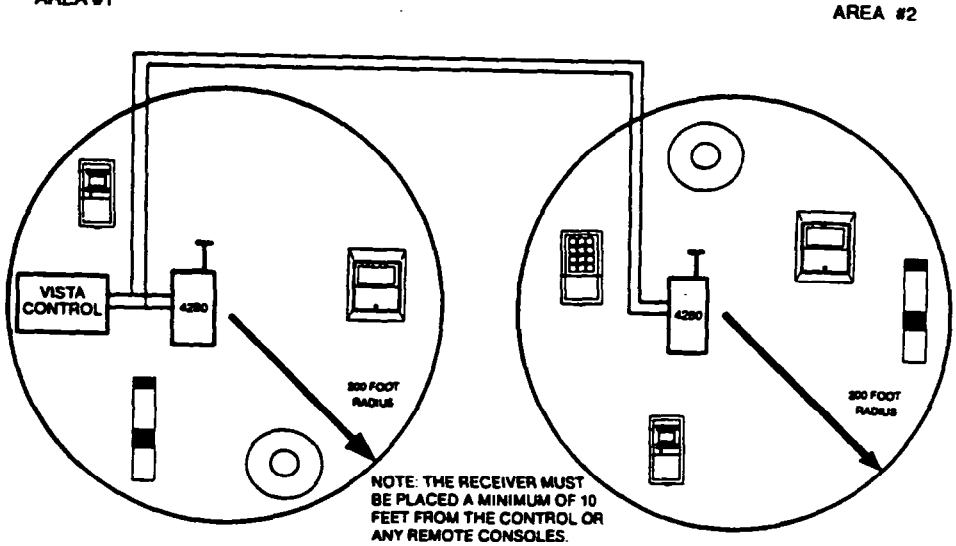
AREA #1
AREA #2
VISTA CONTROL
4280
4280
200 FOOT RADIUS
200 FOOT RADIUS
NOTE: THE RECEIVER MUST BE PLACED A MINIMUM OF 10 FEET FROM THE CONTROL OR ANY REMOTE CONSOLES.

Diagram 12. TWO WIRELESS RECEIVERS TO INCREASE COVERAGE

ADVISORIES

1. If dual 4280s or 4280-8s are used:
   - A. Both must be at least 10 feet from each other, as well as from the Vista XM Control panel and remote consoles.
   - B. One of the 4280s or 4280-8s must be powered from Aux. power (see SPECIFICATIONS).
   - C. The house IDs must be the same.
   - D. Using two Receivers *does not* increase the number of transmitters the system can support (63 transmitters, plus a wireless keypad).
2. Follow the chart below for max. polling loop runs:

*#22 gauge @650' max

*#20 gauge @950' max

*#18 gauge @1500' max

*#16 gauge @ 2400' max

Note: Twisted pair recommended for all normal runs.

IMPORTANT: The maximum combined polling loop run is 4000'. If using shielded wire, the maximum is 2000'.

CAUTION: If an intercom system is being used, the polling loop wires must be as far from the intercom wiring as possible (minimum 6"). If this spacing cannot be accomplished, shielded wire must be used. If this is not done, interference on the intercom system might occur! Also note that the maximum total wire supported is cut in half when shielded wire is used.

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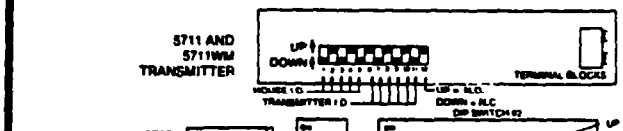
TABLE 2. DIP SWITCH TABLES FOR WIRELESS DEVICES

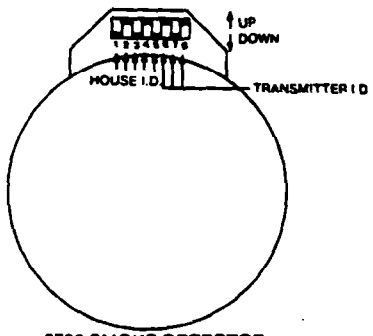
HOUSE I.D. SWITCH SETTING FOR ALL WIRELESS DEVICES.

HOUSE I.D	DIP SWITCH SETTINGS				
	1	2	3	4	5
1	UP	UP	UP	UP	dn
2	UP	UP	UP	dn	UP
3	UP	UP	UP	dn	dn
4	UP	UP	dn	UP	UP
5	UP	UP	dn	UP	dn
6	UP	UP	dn	dn	UP
7	UP	UP	dn	dn	dn
8	UP	dn	UP	UP	UP
9	UP	dn	UP	UP	dn
10	UP	dn	UP	dn	UP
11	UP	dn	UP	dn	dn
12	UP	dn	dn	UP	UP
13	UP	dn	dn	UP	dn
14	UP	dn	dn	dn	UP
15	UP	dn	dn	dn	dn
16	dn	UP	UP	UP	UP
17	dn	UP	UP	UP	dn
18	dn	UP	UP	dn	UP
19	dn	UP	UP	dn	dn
20	dn	UP	dn	UP	UP
21	dn	UP	dn	UP	dn
22	dn	UP	dn	dn	UP
23	dn	UP	dn	dn	dn
24	dn	dn	UP	UP	UP
25	dn	dn	UP	UP	dn
26	dn	dn	UP	dn	UP
27	dn	dn	UP	dn	dn
28	dn	dn	dn	UP	UP
29	dn	dn	dn	UP	dn
30	dn	dn	dn	dn	UP
31	dn	dn	dn	dn	dn



TRANSMITTER I.D	DIP SWITCH SETTINGS					
	6	7	8	9	10	11
1	UP	UP	UP	UP	UP	dn
2	UP	UP	UP	UP	dn	UP
3	UP	UP	UP	UP	dn	dn
4	UP	UP	UP	dn	UP	UP
5	UP	UP	UP	dn	UP	dn
6	UP	UP	UP	dn	dn	UP
7	UP	UP	UP	dn	dn	dn
8	UP	UP	dn	UP	UP	UP
9	UP	UP	dn	UP	UP	dn
10	UP	UP	dn	UP	dn	UP
11	UP	UP	dn	UP	dn	dn
12	UP	UP	dn	dn	UP	UP
13	UP	UP	dn	dn	UP	dn
14	UP	UP	dn	dn	dn	UP
15	UP	UP	dn	dn	dn	dn
16	UP	dn	UP	UP	UP	UP
17	UP	dn	UP	UP	UP	dn
18	UP	dn	UP	UP	dn	UP
19	UP	dn	UP	UP	dn	dn
20	UP	dn	UP	dn	UP	UP
21	UP	dn	UP	dn	UP	dn
22	UP	dn	UP	dn	dn	UP
23	UP	dn	UP	dn	dn	dn
24	UP	dn	dn	UP	UP	UP
25	UP	dn	dn	UP	UP	dn
26	UP	dn	dn	UP	dn	UP
27	UP	dn	dn	UP	dn	dn
28	UP	dn	dn	dn	UP	UP
29	UP	dn	dn	dn	UP	dn
30	UP	dn	dn	dn	dn	UP
31	UP	dn	dn	dn	dn	dn
32	dn	UP	UP	UP	UP	UP

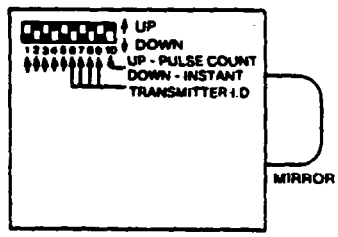
TRANSMITTER I.D	DIP SWITCH SETTINGS					
	6	7	8	9	10	11
33	dn	UP	UP	UP	UP	dn
34	dn	UP	UP	UP	dn	UP
35	dn	UP	UP	UP	dn	dn
36	dn	UP	UP	dn	UP	UP
37	dn	UP	UP	dn	UP	dn
38	dn	UP	UP	dn	dn	UP
39	dn	UP	UP	dn	dn	dn
40	dn	UP	dn	UP	UP	UP
41	dn	UP	dn	UP	UP	dn
42	dn	UP	dn	UP	dn	UP
43	dn	UP	dn	UP	dn	dn
44	dn	UP	dn	dn	UP	UP
45	dn	UP	dn	dn	UP	dn
46	dn	UP	dn	dn	dn	UP
47	dn	UP	dn	dn	dn	dn
48	dn	dn	UP	UP	UP	UP
49	dn	dn	UP	UP	UP	dn
50	dn	dn	UP	UP	dn	UP
51	dn	dn	UP	UP	dn	dn
52	dn	dn	UP	dn	UP	UP
53	dn	dn	UP	dn	UP	dn
54	dn	dn	UP	dn	dn	UP
55	dn	dn	UP	dn	dn	dn
56	dn	dn	dn	UP	UP	UP
57	dn	dn	dn	UP	UP	dn
58	dn	dn	dn	UP	dn	UP
59	dn	dn	dn	UP	dn	dn
60	dn	dn	dn	dn	UP	UP
61	dn	dn	dn	dn	UP	dn
62	dn	dn	dn	dn	dn	UP
63	dn	dn	dn	dn	dn	dn



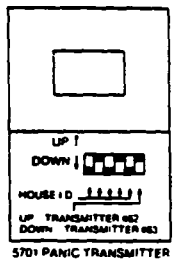
5706 SMOKE DETECTOR

TRANSMITTER I.D	DIP SWITCH SETTINGS		
	6	7	8
48	UP	UP	UP
49	UP	UP	dn
50	UP	dn	UP
51	UP	dn	dn
52	dn	UP	UP
53	dn	UP	dn
54	dn	dn	UP
55	dn	dn	dn

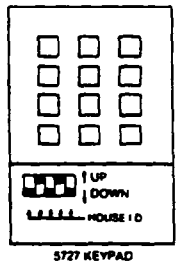
TRANSMITTER I.D	DIP SWITCH SETTINGS			
	6	7	8	9
32	UP	UP	UP	UP
33	UP	UP	UP	dn
34	UP	UP	dn	UP
35	UP	UP	dn	dn
36	UP	dn	UP	UP
37	UP	dn	UP	dn
38	UP	dn	dn	UP
39	UP	dn	dn	dn
40	dn	UP	UP	UP
41	dn	UP	UP	dn
42	dn	UP	dn	UP
43	dn	UP	dn	dn
44	dn	dn	UP	UP
45	dn	dn	UP	dn
46	dn	dn	dn	UP
47	dn	dn	dn	dn



5775 PIR



5701 PANIC TRANSMITTER



5727 KEYPAD

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— E. ZONE EXPANSION COMBINATIONS —

INTRODUCTION

One of the VISTA system's strengths is flexibility. VISTA permits the use of homerun hard-wire, polling loop and wireless technologies in any combination. The first 9 zones can be either all hard-wired, all wireless (using a 4280 RF receiver with ALERT III transmitters), or a combination of both technologies. Zones 10 through 64 can use either all polling loop devices, all wireless (RF) devices,or a combination of both technologies.

The selecting of wireless or polling loop zones is programmed in fields 1*18 to 1*25. To enable a zone as a wireless (RF) zone simply enter a "1" in the location for that zone, as shown:

Ex: SELECT RF (ZONES 1-8) 1 2 3 4 5 6 7 8

0 1 1 1 0 0 0 1

In the above example, zones 2, 3, 4, and 8 are programmed to be wireless (RF) zones; zones 1, 5, 6 and 7 are hard-wired.

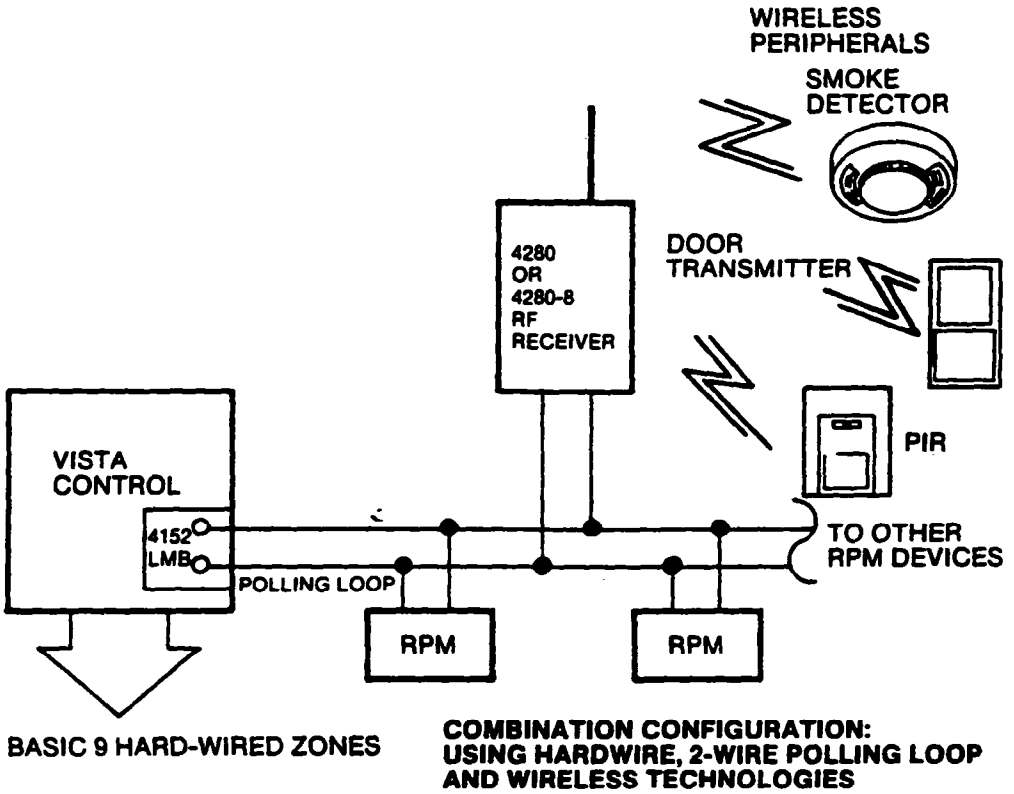

Diagram 13. ZONE EXPANSION COMBINATION CONFIGURATIONS

ADVISORIES

1. Any zone from 1-63 can be designated as an RF zone.
2. Be careful when designating RF zones. If you want a zone to be either hard-wired or on the polling loop, but accidentally enable it as RF, the system will ignore that zone. RF enable overrides hard-wire!

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SECTION V
SYSTEM CONFIGURATION (PERIPHERALS)

— A. REMOTE CONSOLES —

GENERAL

Both the 4130XM and the 5130XM supply up to 280mA (200mA for UL certificated installations) of auxiliary power for remote consoles and/or other auxiliary devices such as motion detectors or 4-wire smoke detectors. The 4140XM supplies up to 700mA for non-UL usage and up to 400mA for UL applications. You must keep this in mind when adding remote consoles so you don't "over-draw" current from the panel. This would result in a battery which is never fully charged, or possibly a blown auxiliary power fuse.

In the event you need more than the allowed number of remote consoles, you can use a second #1350 power pack to power up to 7 extra 4137s or up to 4 extra 5137s. Instead of using the panel's auxiliary power connection to the red and black console lead, connect the Positive (+) terminal of the 1350 to the blue console lead, and the Negative (-) to the black lead. As long as AC power is present, these extra consoles are active. If AC is lost , the system's back-up battery will take over and only the consoles powered from auxiliary power will be active.

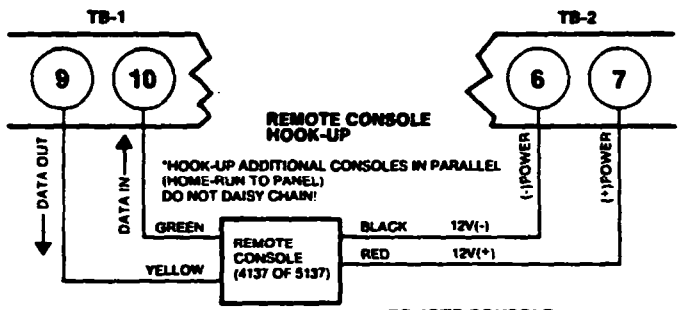
NOTE: If using a 4140XM, make sure you power at least 1 remote console from auxiliary power, otherwise there would be no means of controlling the panel during an AC loss.

4137

- For use with the 4130XM, 4140XM or 5130XM Controls
- 60 mA current draw
- Power up to 4 consoles from the 4130XM and 5130XM (non-UL)
- Power up to 7 consoles from the 4140XM.(non-UL)

5137

- For use with the 4140XM or 5130XM Controls
- 60 mA current draw normal
- 90 mA current draw with backlighting on
- Power up to 7 consoles



REMOTE CONSOLE COMPATIBILITY:

CONTROL	4137	5137
4140XM	X	X
4130XM	X	
5130XM	X	X

Diagram 14. REMOTE CONSOLE HOOK-UP

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— B. EXTERNAL SOUNDERS —

4140XM

The 4140XM is housed in a metal cabinet and contains a built-in relay, rated at 2.8 amps. The output of this relay is a positive (+) trigger from terminal 8 on TB2, with the negative from TB2-15. Up to two 702s can be used, wired in series as shown in A; up to two 719s in parallel as shown in B:

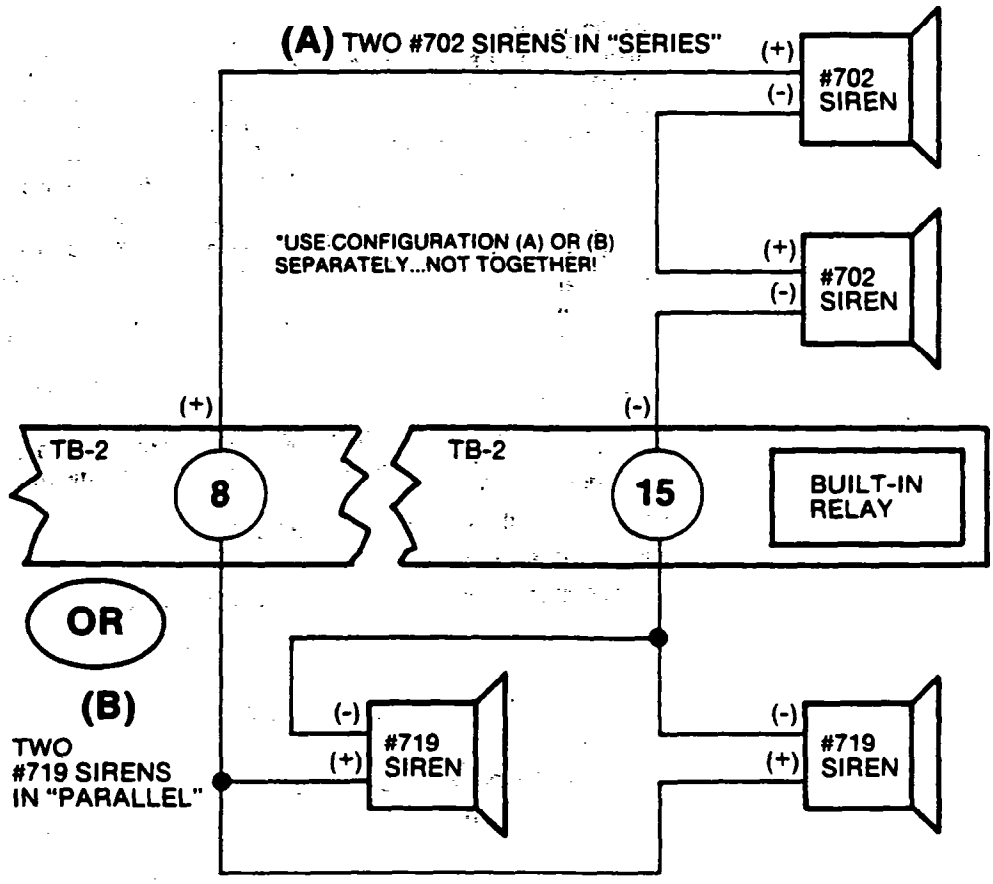

Diagram 15. SOUNDER OPTIONS FOR 4140XM CONTROL

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4130XM/5130XM

The 4130XM/5130XM self-contained Controls have an external sounder output of 100mA, (negative-going (-) trigger) from the brown lead. The continuous positive (+) is taken from the red/black lead. From this output you could use up to two 740 High Intensity Sounders, wired in parallel, or one Amseco Motor Bell, ABB1031, or up to eight indoor Piezo Sounders, BRK PA400B in parallel, as shown:

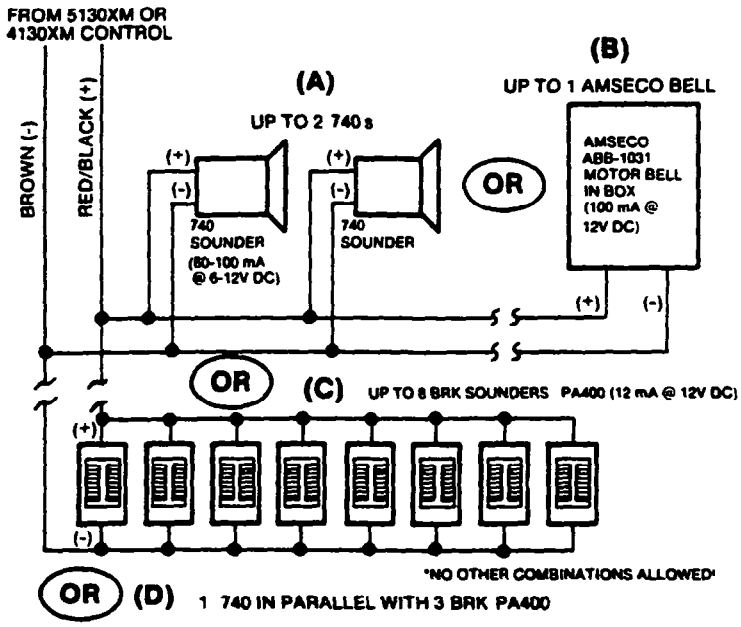

Diagram 16. SOUNDER OPTIONS FOR 5130XM OR 4130XM CONTROLS

4148 RELAY MODULE

Other sounders, such as the 702 and 719 self-contained sirens can be used with the 4130XM/5130XM, but the addition of the 4148 Relay Module is necessary because these sirens (or equivalent) draw more than the allowable 100mA of current. Connect the 4148 module, to the control, as shown:

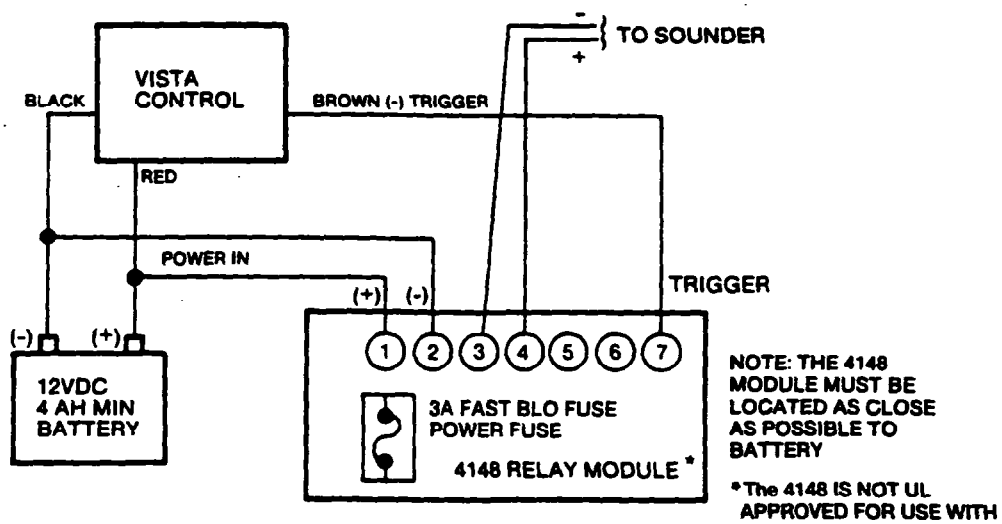

Diagram 17. 4148 RELAY MODULE

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702 SIREN

Up to two 702s can be used, wired in series. as shown:

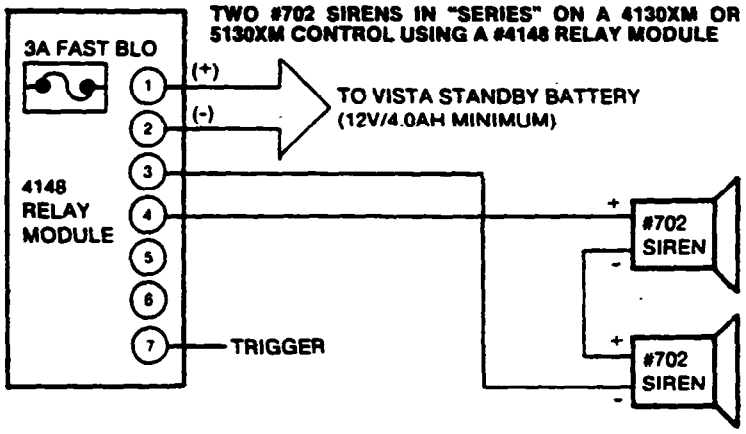

Diagram 18. TWO 702 SIRENS IN SERIES

719 SIREN

Up to two 719s can be used, wired in parallel, as shown:

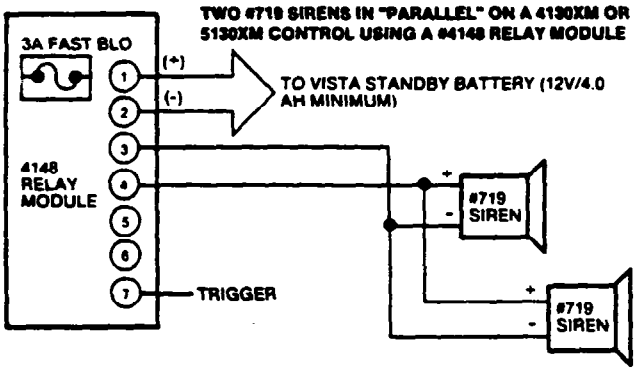

Diagram 19. TWO 719 SIRENS IN PARALLEL

ADVISORIES

1. Going beyond the above mentioned limits will result in a blown auxiliary power or relay fuse.
2. The 4148 relay is rated at 2.8 Amps @ 28 VDC max. If sounders or drivers other than the ones mentioned above are used, make sure the maximum current draw does not exceed 2.8 Amps.

CAUTION: These sounders are polarized (+) and (-)! If polarity is reversed, the sounder will not work!

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— C. SMOKE DETECTOR CONFIGURATIONS —

ZONE 1

When programmed as an EOLR supervised FIRE zone (type 09 in program field *02), up to three 2-wire smoke detectors can be used. Recommended are the BRK1400 Ionization detector, 2400 Photoelectric smoke detector, and the 2400TH Photoelectric smoke detector with 135°F heat sensor.

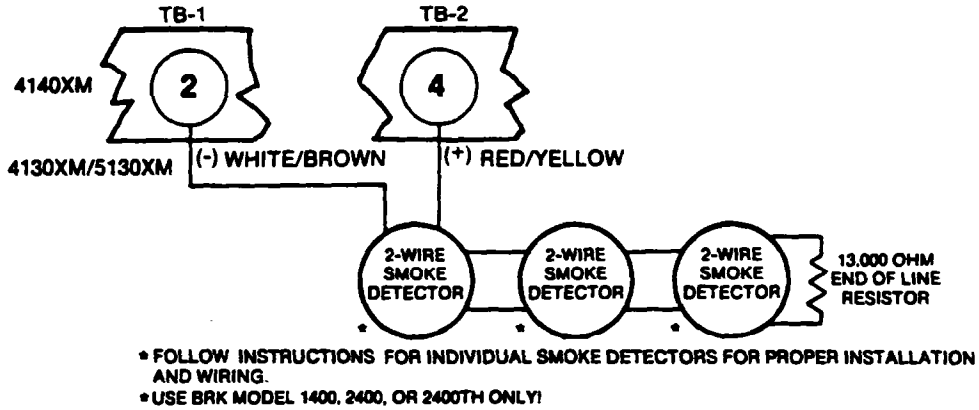

Diagram 20. ZONE 1 EOLR SUPERVISED FOR 2-WIRE SMOKE DETECTORS

ADVISORY

If the EOLR is not at the end of the loop, the zone is not fully supervised. The system will not respond to an open circuit within the zone.

ZONES 2 THROUGH 8

These zones can support as many 4-wire smoke detectors as can be powered, when programmed as a FIRE zone, type 09, in program field *02. There are only two requirements: (1) The zones must be configured for EOLR supervision, and (2) A normally-closed, momentary switch must be installed in series with the power to the detectors in order to allow reset of the smoke detectors after an alarm. The detectors must be wired in parallel, with the EOLR at the last detector, for full supervision, as shown:

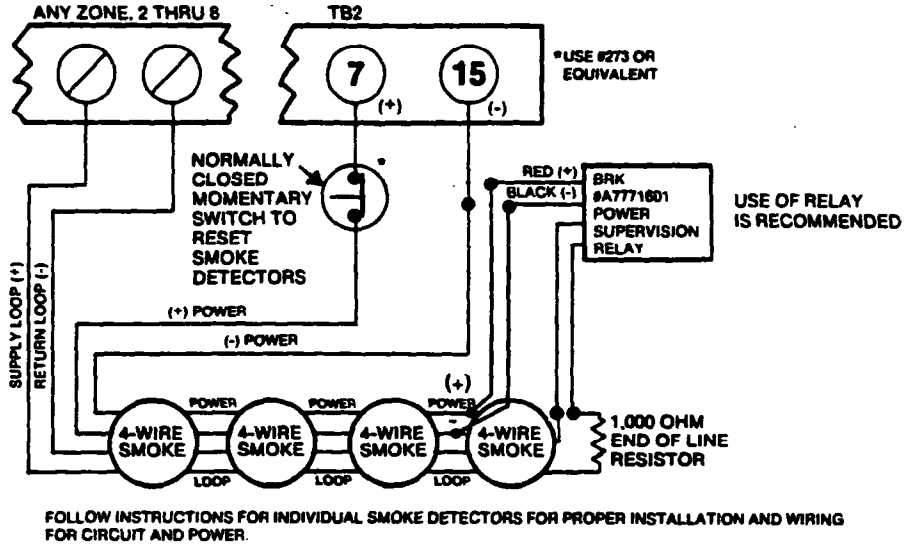

Diagram 21. ZONES 2-8 EOLR SUPERVISED FOR 4-WIRE SMOKE DETECTORS

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POLLING LOOP SMOKE DETECTORS (4192SD, 4192SDT OR 4192CP)

Can be added to the 2-wire Polling Loop via the 4152LMB loop module, on zones 10 through 64 (as programmed in fields *05, 1*02, 1*03, 1*04 and 1*05).These detectors have a built-in RPM which is DIP switch programmable. They are wired in parallel to the polling loop, and do not need auxiliary power or a separate reset switch. The polling loop provides power and reset signals to the detectors, as well as alarm and trouble signals from the detectors.

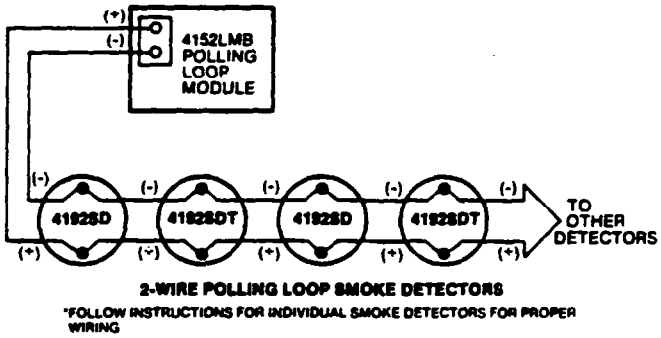

Diagram 22. 2-WIRE POLLING LOOP SMOKE DETECTORS

ADVISORIES

1. The maximum polling loop runs are as follows:
   - #22 gauge @ 650' max.
   - #20 gauge @ 950' max.
   - #18 gauge @ 1500' max.
   - #16 gauge @ 2400' max.

   IMPORTANT!: The maximum combined polling loop run is 4000'. If using shielded wire, the max. is 2000'.
2. Twisted pair is recommended for all normal runs, but if an intercom system exists, or is being planned, you must keep the polling loop at least 6" from the intercom wiring, or use shielded wire. If not, you might experience intercom interference.

WIRELESS SMOKE DETECTORS (5706)

Can be used on zones 48 through 55 as long as that zone is enabled for RF usage in program fields 1*23 and/or 1*24, and are programmed as FIRE zones, type 09, in fields 1*03 and/or 1*04. These detectors have built-in transmitters and are powered from a single 9 volt battery. A 4280 RF receiver must be connected to the 2-wire polling loop driven by the 4152LMB loop module. These transmitter/detectors are DIP switch programmable and are fully supervised for low battery and check-in.

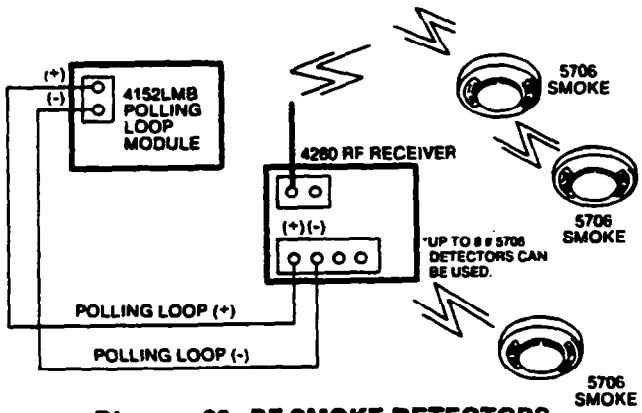

Diagram 23. RF SMOKE DETECTORS

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— D. PASSIVE INFRARED MOTION DETECTORS —

GENERAL INFORMATION

Select a mounting site with the following notes in mind: Best coverage will be obtained if the mounting site is selected such that the likely direction of intruder motion is across the pattern of protection.

Avoid locating the unit where central heating radiators, flames or heating outlet ducts are within the protective zones.

Avoid locating the unit in direct sunlight or directly above strong sources of heat.

Avoid locating the unit on unstable surfaces.

Avoid running alarm wiring close to heavy duty electrical cables.

Make wire connections as shown:

POLLING LOOP PIR (4196)

The 4196 is a quad element passive infrared detector with a built-in RPM that is connected directly to the polling loop. It provides up to 40 feet of protection, using a wide angle mirror, or up to 70 feet of corridor protection using the long range mirror (both mirrors are provided with the unit). A right zone is available for use with closed-circuit devices and can be programmed for a different zone type than the PIR. The 4196 can be flat wall mounted or corner mounted, using the mounting plate provided. Programming of the unit's address ID is accomplished via the unit's DIP switches (see Table 1 in the preceding section). Refer to the instructions accompanying the 4196 for patterns of coverage and procedures for changing mirrors.

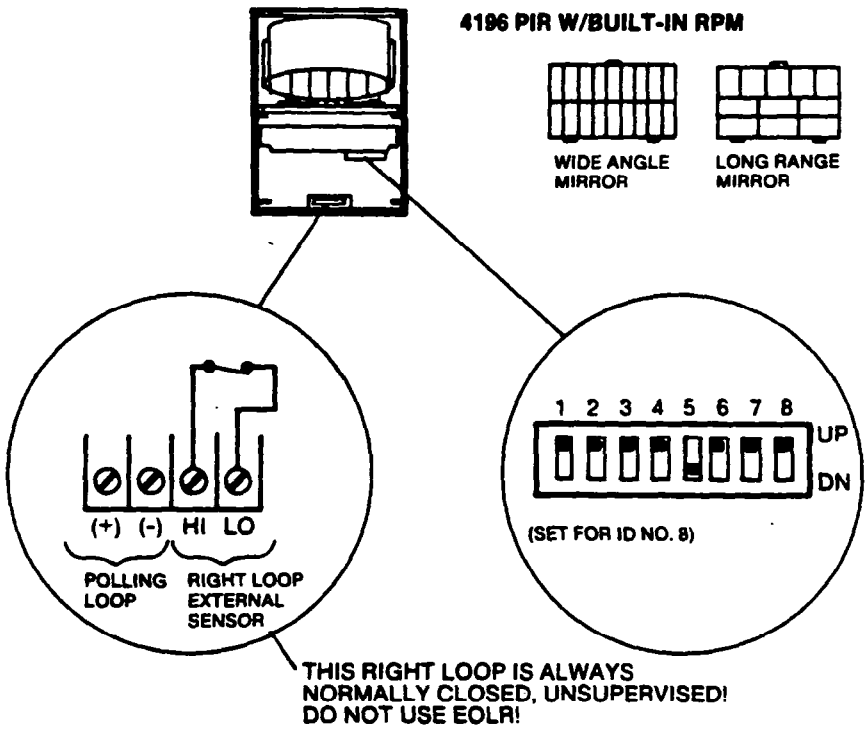
4196 PIR W/BUILT-IN RPM
WIDE ANGLE MIRROR
LONG RANGE MIRROR
(+) (-) HI LO
POLLING LOOP
RIGHT LOOP EXTERNAL SENSOR
1 2 3 4 5 6 7 8
UP
DN
(SET FOR ID NO. 8)
THIS RIGHT LOOP IS ALWAYS NORMALLY CLOSED, UNSUPERVISED! DO NOT USE EOLR!

Diagram 24. 4196 POLLING LOOP PIR

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POLLING LOOP PIR (4275)

The 4275 is a dual element passive infrared detector, with a built-in RPM, that is connected directly to the 2-wire polling loop. It provides up to 45' of protection, using the wide angle mirror, or up to 70' of narrow (corridor or curtain) protection, using the long range mirror (both mirrors are provided). The PIR can be mounted flat on the wall or corner mounted, with the mounting plate provided. Programming is done via the DIP switches (see Table 1 in the preceding section). Refer to the instructions accompanying the 4275 for patterns of coverage and procedures for changing mirrors.

Connect as shown:

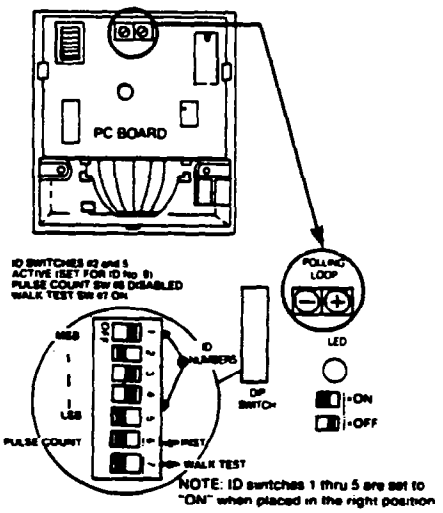

Diagram 25. 4275 POLLING LOOP PIR

WIRELESS PIR (5775)

The 5775 is a battery operated, wireless, dual element passive infrared motion detector and provides wide angle protection with a range of up to 35'. The PIR features a pulse count option and can be mounted flat on the wall or corner mounted. Programming of house ID, transmitter ID and pulse count option is done via the unit's DIP switch. Note that there is a 3 minute delay between transmissions to preserve battery life. Refer to the instructions accompanying the 5775 for additional details.

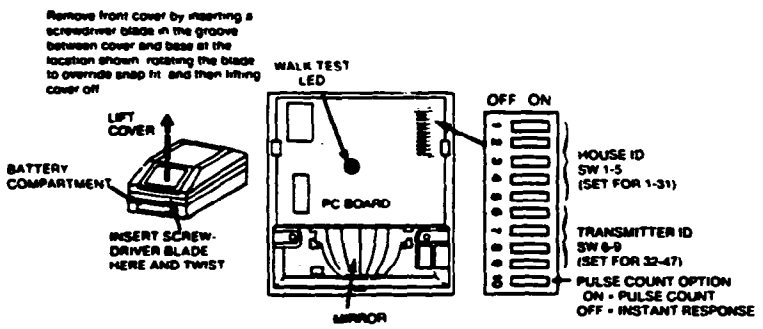
Remove front cover by inserting a screwdriver blade in the groove between cover and base at the location shown rotating the blade to override snap fit and then lifting cover off
WALK TEST LED
OFF ON
LIFT COVER
BATTERY COMPARTMENT
INSERT SCREW-DRIVER BLADE HERE AND TWIST
PC BOARD
HOUSE ID SW 1-5 (SET FOR 1-31)
TRANSMITTER ID SW 6-9 (SET FOR 32-47)
PULSE COUNT OPTION ON = PULSE COUNT OFF = INSTANT RESPONSE
MIRROR

Diagram 26. 5775 WIRELESS PIR

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— E. PHONE LINE INTERFACE —

4171XT-XM/4171XM INSTALLATION

The 4171XT-XM is factory installed in the 4140XM Control. For the 4130XM/5130XM Controls, connect the 4171XT-XM or 4171XM as shown below. Note that if any zone expansion is being used, the Dialer board is already installed (see ZONE EXPANSION section).

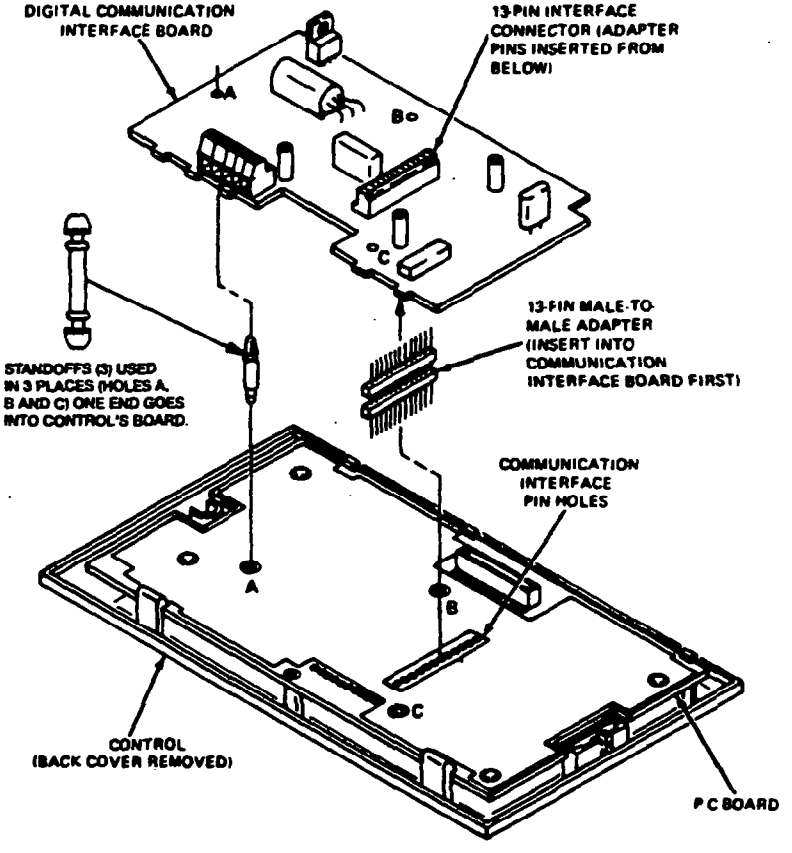
DIGITAL COMMUNICATION INTERFACE BOARD
13-PIN INTERFACE CONNECTOR (ADAPTER PINS INSERTED FROM BELOW)
A
B
C
13-PIN MALE-TO-MALE ADAPTER (INSERT INTO COMMUNICATION INTERFACE BOARD FIRST)
STANDOFFS (3) USED IN 3 PLACES (HOLES A, B AND C) ONE END GOES INTO CONTROL'S BOARD.
COMMUNICATION INTERFACE PIN HOLES
A
B
C
CONTROL (BACK COVER REMOVED)
P C BOARD

Diagram 27. INSTALLING THE 4171XT-XM DIALER TO THE 4130XM/5130XM CONTROLS

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4171XT-XM/4171XM TERMINAL DESIGNATIONS

Terminal 1. This is a programmable output (See 1*46). It can be used as a ground start output with the 675 Ground Start Module, as an output to produce console audible warnings on a remote sounder (ex: No. 706-12), or as an open/close trigger for use with other communications media.

NOTES:

- The 675 is not UL listed.
- Only one of the above options can be chosen.
- If either GROUND START, or CONSOLE AUDIBLE is chosen, Auxiliary Voltage Trigger pin 4 may not be used.

Terminal 2. INCOMING PHONE LINE (TIP)

Terminal 3. INCOMING PHONE LINE (RING).

Terminal 4. LOCAL HANDSETS (RING).

Terminal 5. LOCAL HANDSETS (TIP).

Connect the green flying lead to a proper earth ground.

WARNING: To prevent the risk of shock, disconnect phone lines at telco jack before servicing the unit.

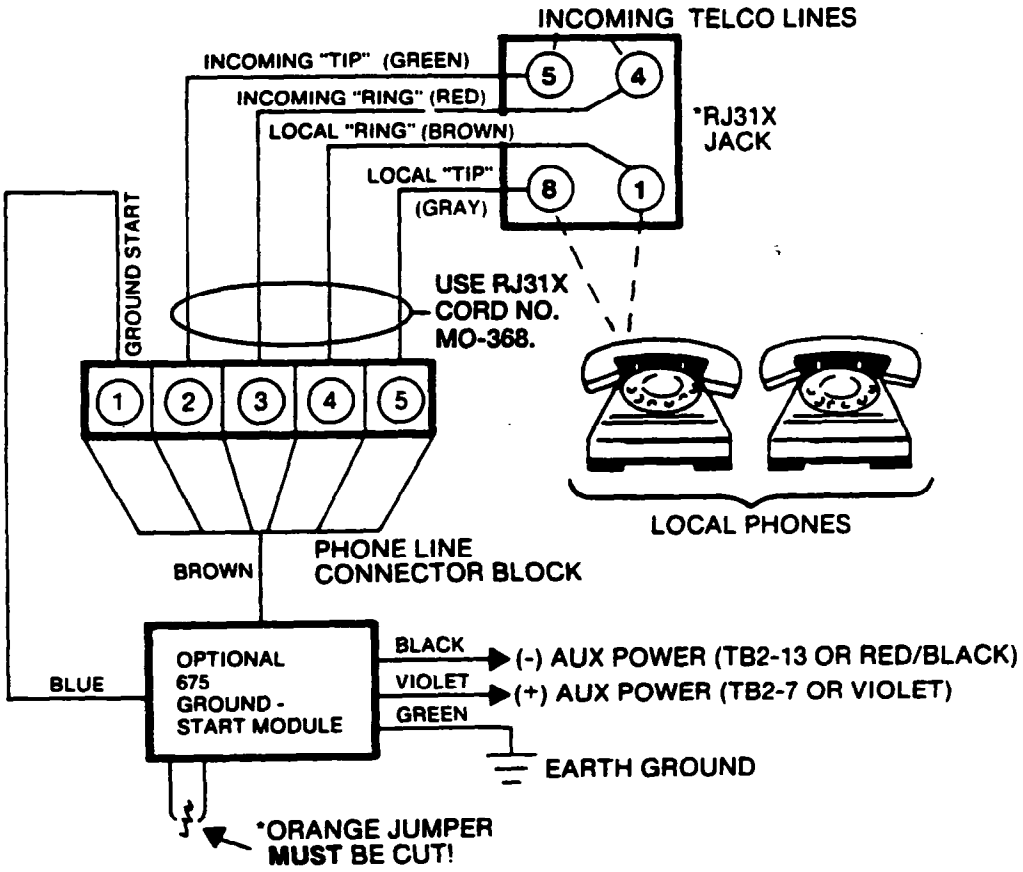

Diagram 28. PHONE LINE AND GROUND START CONNECTIONS

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— F. AUX. VOLTAGE TRIGGER OUTPUTS —

PIN CONNECTIONS

Pin 1: Fire
Pin 2: Panic
Pin 3: Burglary
Pin 4: Open/Close (refer to "Phone Line Interface")
Pin 5: Ground Terminal 1

IMPORTANT!: The 4171TR Trigger cable must be used for connection to these outputs.

NOTE: If the Keyswitch arming is enabled in field *15, then pin 1 is used for the ARMED LED and pin 2 is used for the READY LED. Voltage triggers are reset when the system is disarmed (Code + OFF) or after the timeout interval.

Note that the 16 second Dialer delay (if programmed in field *88) does not affect voltage triggers. These triggers are always activated instantly.

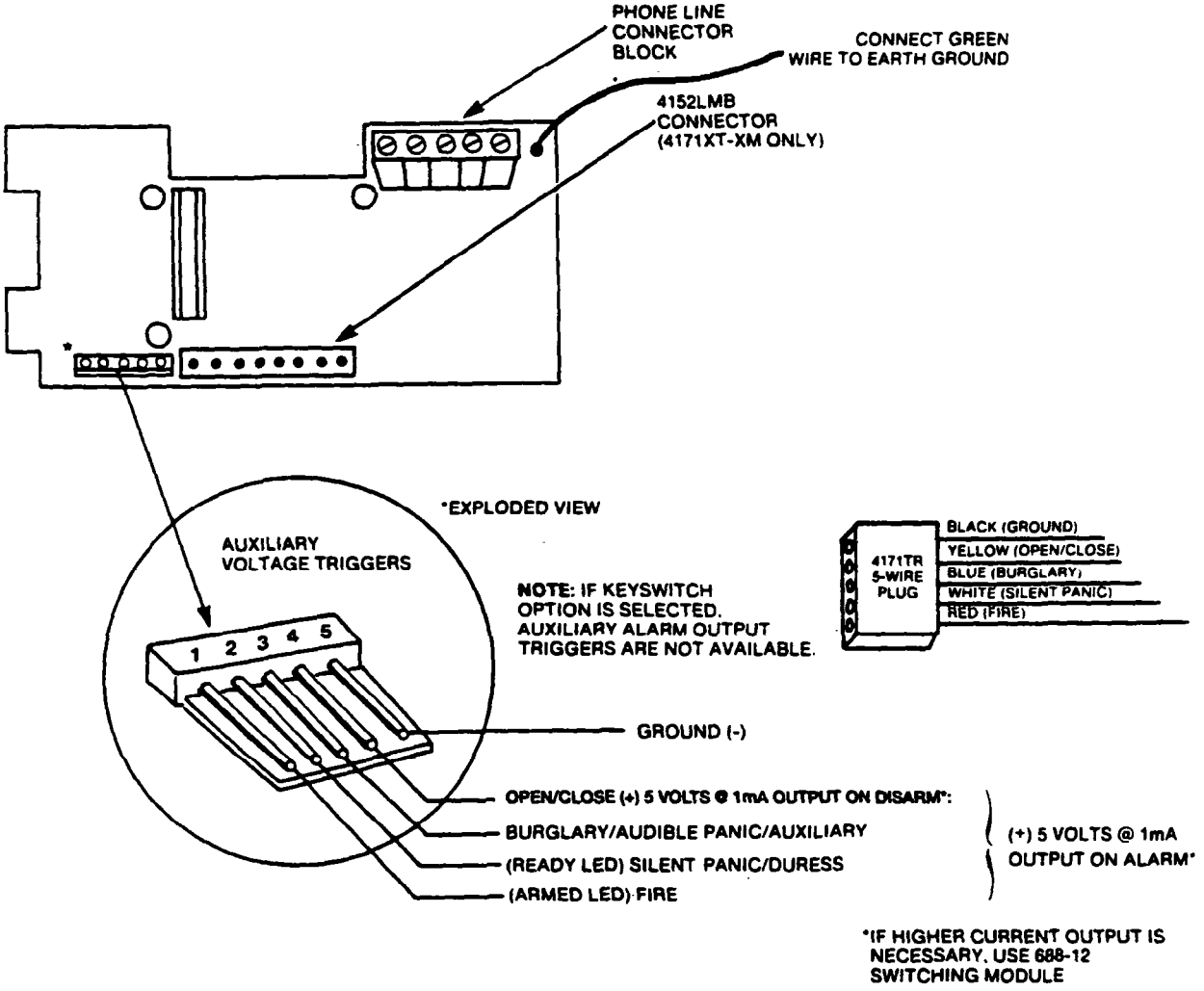
PHONE LINE CONNECTOR BLOCK
CONNECT GREEN WIRE TO EARTH GROUND
4152LMB CONNECTOR (4171XT-XM ONLY)
*EXPLODED VIEW
AUXILIARY VOLTAGE TRIGGERS
1 2 3 4 5
NOTE: IF KEYSWITCH OPTION IS SELECTED, AUXILIARY ALARM OUTPUT TRIGGERS ARE NOT AVAILABLE.
4171TR 5-WIRE PLUG
BLACK (GROUND)
YELLOW (OPEN/CLOSE)
BLUE (BURGLARY)
WHITE (SILENT PANIC)
RED (FIRE)
GROUND (-)
OPEN/CLOSE (+) 5 VOLTS @ 1mA OUTPUT ON DISARM*:
BURGLARY/AUDIBLE PANIC/AUXILIARY
(READY LED) SILENT PANIC/DURESS
(ARMED LED) FIRE
(+) 5 VOLTS @ 1mA OUTPUT ON ALARM*
*IF HIGHER CURRENT OUTPUT IS NECESSARY, USE 688-12 SWITCHING MODULE

Diagram 29. 4171XT AUXILIARY VOLTAGE TRIGGERS

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— G. REMOTE KEYSWITCH OPERATION & WIRING —

ADVISORY

If the keyswitch option is selected (field *15), the alarm trigger outputs are disabled.

An optional Remote Keyswitch, can be used for remote arming and disarming of the system. If used, and programmed by the installer (*15=1), a normally-open momentary switch is connected across a 1000 Ohm resistor on zone 7 of the control panel (Zone 7 must be given up as a protection zone but must still be assigned a zone type). A momentary short across this zone will arm the system in the "AWAY" mode. If the short is held for more than 3 seconds, the system will arm in the "STAY" mode. (All zones designated as zone types 4 or 10 will be automatically bypassed). After the system has been armed, the next time zone 7 is shorted, the system will disarm.

An optional closed-circuit tamper switch (model 112) can be wired in series with zone 7, so that, if the switchplate is removed from the wall, the tamper will open, disabling keyswitch operation until the system is next disarmed from the console.

NOTES:

1. When keyswitch is selected, a 1000 ohm resistor must be used regardless of whether or not zones 2-8 are selected to use end of line resistors.
2. Only one keyswitch with LEDs can be supported by the system's power supply. If more than one keyswitch is to be used, a 688-12 switching module must be used to boost the signals used to drive the LEDs.

LED indications are defined as follows:

GREEN	RED	MEANING
OFF	OFF	DISARMED & NOT READY
ON	OFF	DISARMED & READY
OFF	ON STEADY	ARMED AWAY
OFF	SLOW FLASH	ARMED STAY
OFF	RAPID FLASH	ALARM MEMORY

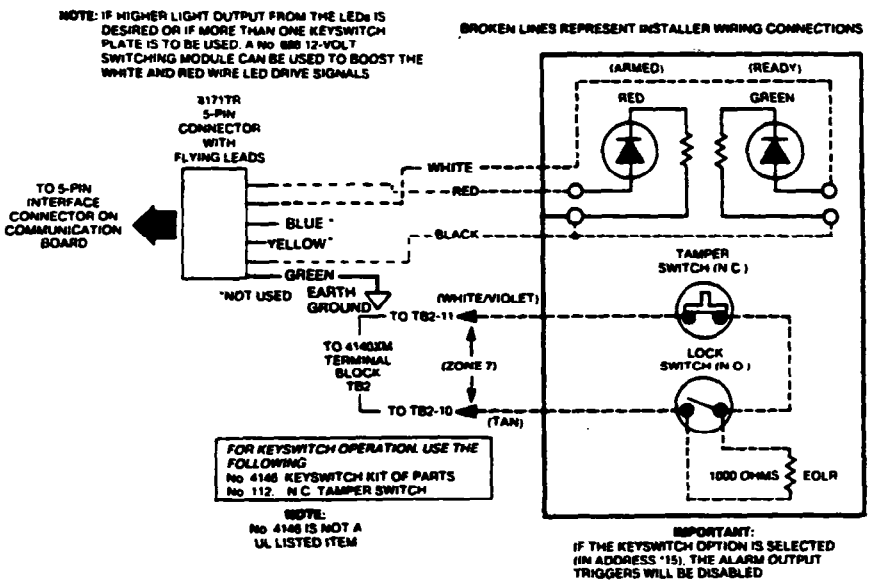
NOTE: IF HIGHER LIGHT OUTPUT FROM THE LEDs IS DESIRED OR IF MORE THAN ONE KEYSWITCH PLATE IS TO BE USED, A No 688 12-VOLT SWITCHING MODULE CAN BE USED TO BOOST THE WHITE AND RED WIRE LED DRIVE SIGNALS
BROKEN LINES REPRESENT INSTALLER WIRING CONNECTIONS
(ARMED)
(READY)
RED
GREEN
3171TR 5-PIN CONNECTOR WITH FLYING LEADS
TO 5-PIN INTERFACE CONNECTOR ON COMMUNICATION BOARD
WHITE
RED
BLUE *
YELLOW*
BLACK
GREEN
*NOT USED
EARTH GROUND
TAMPER SWITCH (N C)
(WHITE/VIOLET)
TO TB2-11
TO 4140XM TERMINAL BLOCK TB2
(ZONE 7)
LOCK SWITCH (N O)
TO TB2-10
(TAN)
FOR KEYSWITCH OPERATION, USE THE FOLLOWING
No 4146 KEYSWITCH KIT OF PARTS
No 112 N C TAMPER SWITCH
NOTE:
No 4146 IS NOT A UL LISTED ITEM
1000 OHMS
EOLR
IMPORTANT:
IF THE KEYSWITCH OPTION IS SELECTED (IN ADDRESS *15), THE ALARM OUTPUT TRIGGERS WILL BE DISABLED

Diagram 30. KEYSWITCH WIRING

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SECTION VI
MOUNTING PROCEDURES

— A. MOUNTING THE 4140XM CABINET —

Using two screws, mount the 4140XM cabinet to a wall. If mounting to sheetrock or concrete, anchors should also be used. Wire connections can now be made to the terminal strips.

— B. MOUNTING THE 4130XM/5130XM CONTROLS — & 4137/5137 REMOTE CONSOLES

Note that field wiring to these controls/consoles must be completed before the controls/consoles can be mounted.

TWO METHODS

There are two methods of mounting consoles - Surface Mounting and Flush Mounting. If a "rough-in" ring (4133) has been installed in the wall in a new construction application, only the flush mounting method is applicable.

Note : The four mounting tabs on the right-hand side of the 4133 rough-in ring must be broken off before flush mounting can be implemented.

SELECTING SITES

Proper selection of mounting location and height is important for optimum viewability of the LCD display on the console. A location in which lighting is directly above the console should be avoided, since this can shadow the display. For optimum viewing, the console should also be mounted so that the display is slightly below eye level to ensure that the system's users will look down at the display. For Alpha Console users, refer to the VIEWING ANGLE ADJUSTMENT paragraph later in this section for instructions for adjusting the viewing angle of the LCD.

SURFACE MOUNTING

1. Use the template provided (on a separate sheet) to mark the positions on the wall for the screw mounting holes and the cut-out for the interface wiring. Use wall anchors for the screws and make the cut-out in the wall no larger than indicated on the template. DO NOT use a Xerox copy of the template, as it will increase in size by about 10%.
2. Pull the interface wiring in the wall through the cut-out.
3. Remove the console's back cover. The securing screw at the front of the console must be removed to release the back cover (see Diagram 31 for screw location).
4. Pass the interface wiring through the opening in the back cover and through the 4143 Expansion Ring (if used), then mount the back cover to the wall surface with screws. See Diagram 31.
5. Splice the interface wiring to the console wires (or to the wires on the interface connector supplied with 4137s). A wiring diagram is provided in the SYSTEM CONFIGURATION (PERIPHERALS) section. Insulated solderless wire splices (eg. 311) may be used for splicing. Check wire connections carefully before splicing.
6. Attach the main body of the console to the wall-mounted back cover. The console is properly attached when it snaps into place. Use the securing screw (previously removed) to secure the console to the back cover (see Diagram 31 for location of screw hole), then insert the small name plate supplied into the recessed opening to cover the screw head (see Diagram 33).
7. See Diagram 31B for mercantile/industrial mounting with metal cabinet.

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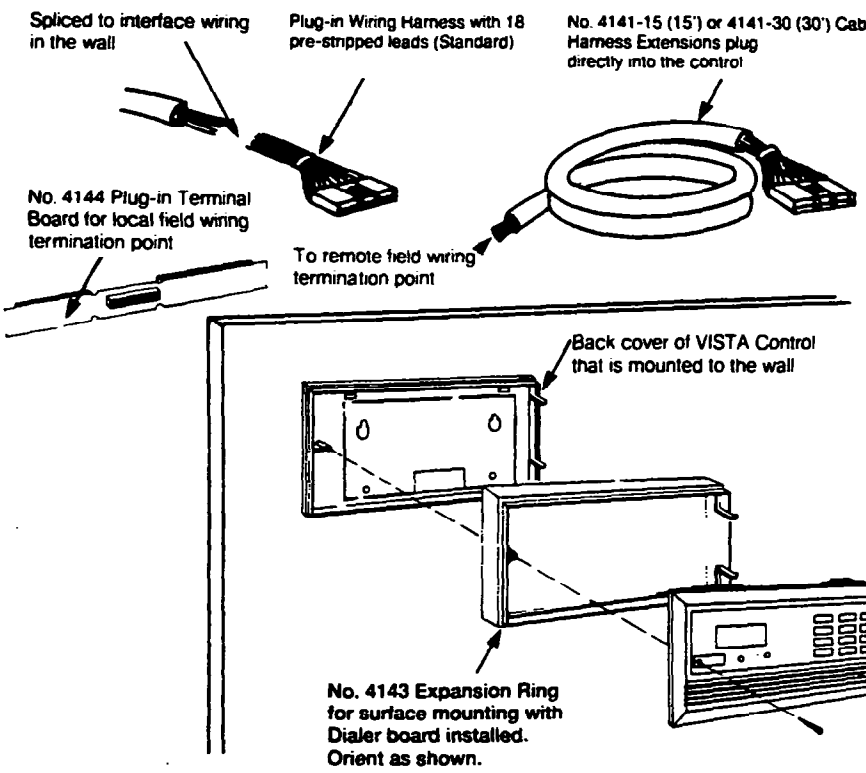

Spliced to interface wiring in the wall
Plug-in Wiring Harness with 18 pre-stripped leads (Standard)
No. 4141-15 (15') or 4141-30 (30') Cable Harness Extensions plug directly into the control
No. 4144 Plug-in Terminal Board for local field wiring termination point
To remote field wiring termination point
Back cover of VISTA Control that is mounted to the wall
No. 4143 Expansion Ring for surface mounting with Dialer board installed. Orient as shown.
VISTA Control with No. 4171XM or XT-XM Digital Communication Interface attached.

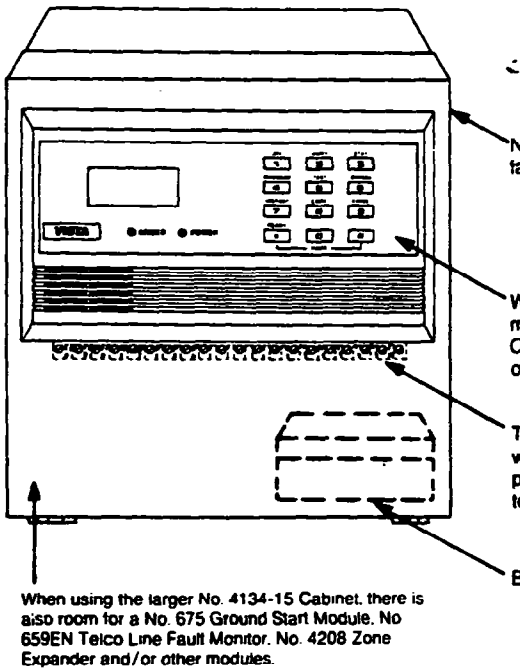
Notes:

- For this type of mounting the battery back-up power will be supplied from a remote location, unless the installer can:
  — cut a small hole in the wall for a No. 4132 Battery Back Box
  OR
  — utilize a triple gang electrical box in the wall behind the unit to hold the battery
  OR
  — mount No. 4132 Battery Back Box to an inside wall of a closet behind the control.
- The No. 4144 Terminal Board plugs directly into the back of the control and will also fit inside the Expansion Ring.

Applications:

- Plaster wire lath construction walls
- Don't want to cut large hole in wall

Diagram 31A. SURFACE MOUNT INSTALLATIONS - PROFESSIONAL OFFICE/RESIDENTIAL


No. 4134-8 Metal Surface Mount Cabinet
Window is provided for mounting the VISTA Control and Communciator on the front of the unit
Terminal strips (with no wrap push-in wiring) are provided for field wiring termination
Battery sits inside cabinet
When using the larger No. 4134-15 Cabinet, there is also room for a No. 675 Ground Start Module, No 659EN Telco Line Fault Monitor, No. 4208 Zone Expander and/or other modules.

Notes:

- **The No. 4134 Surface Mount Metal Cabinet is available in tow sizes; an 8" x 8" x 2" version (No. 4134-8**) and a larger 12" x 12" x 3" version (NO. 4134-15**) that can hold various modules in addition to the battery. Also available is the 4134-12** (12 x 12 x 3) with 4148 relay module for use with the 702 or 719 siren.**
- Knockouts for the interface wiring have also been provided on the rear and sides of the cabinet.

Applications:

- Concrete, Brick or Cement/Cinder Block wall construction
- Wherever else keypad is normally mounted on cabinet

***The 4130XM & 5130XM are UL mercantile listed. For UL mercantile jobs use the 4140ATX.**
****Not Listed**

Diagram 31B. SURFACE MOUNTING - FOR MERCANTILE/INDUSTRIAL INSTALLATIONS (WITH 4134-8 METAL CABINET)

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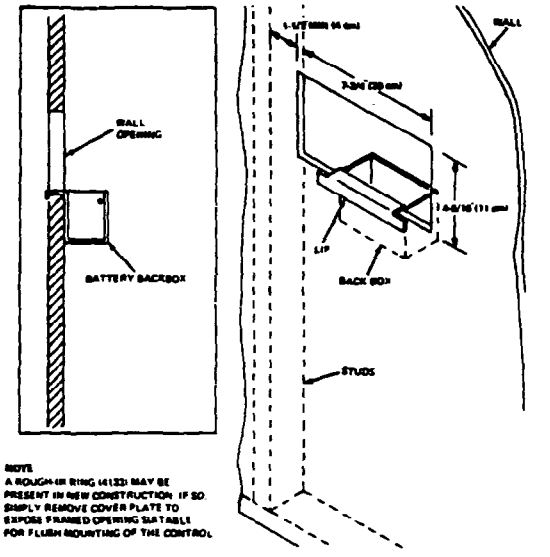
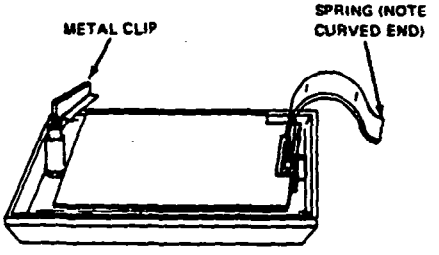
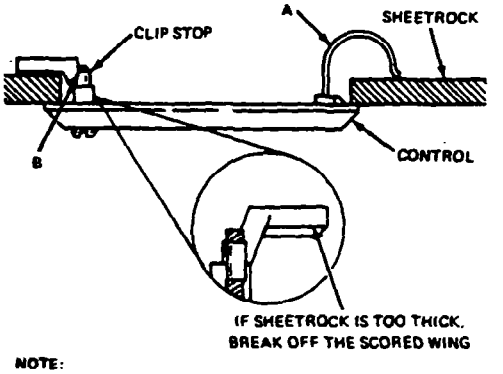
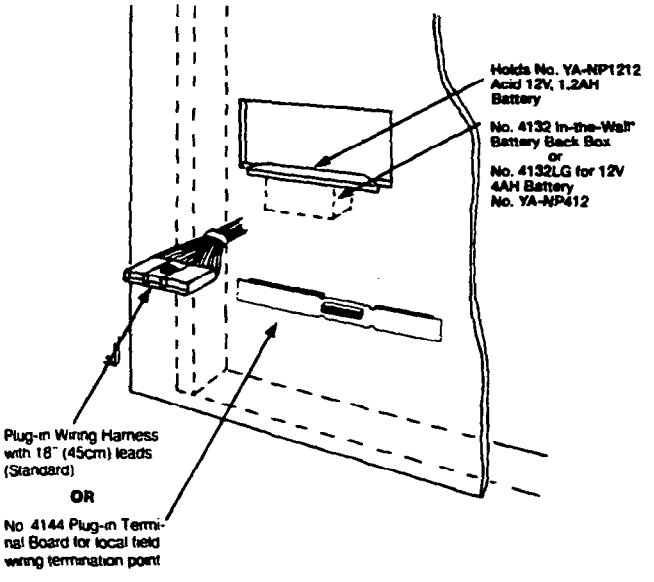
1. Mount the Control as follows, insert securing screw (previously removed) in screw hole at front of Control (see Diagram 33) and attach metal clip (at the rear) as shown below. Turn the screw until the clip enters the guide point about ⅛ of an inch.
2. Insert the straight end of the flat spring into the slot at the other side of the Control, as shown.
3. With the metal clip in the vertical position, mount the Control by hooking the spring behind the right edge of the opening so that it holds the Control against the inside of the wall, as shown at (A). Now turn the screw (from the front of the Control). The clip will turn until it hits the clip stop and will then draw the Control forward (B). Continue turning the screw until the Control is flush against the wall then, making sure that the Control is straight, tighten the screw further to secure the Control firmly in position. **DO NOT OVERTIGHTEN!**
4. **Insert the small VISTA XT nameplate supplied into the recessed opening to cover the screw head at the front of the Control, as previously shown in Diagram 33.**







NOTE:
4-5 16" X 7-3/4"W
WALL OPENING IS REQUIRED FOR FLUSH MOUNTING


Holds No. YA-NP1212 Acid 12V, 1.2AH Battery
No. 4132 In-the-Wall Battery Back Box or No. 4132LG for 12V 4AH Battery No. YA-NP412
Plug-in Wiring Harness with 18" (45cm) leads (Standard)
OR
No 4144 Plug-in Terminal Board for local field wiring termination point

- No. 311 Wire Splices permit meter probe insertion at one end.
- *Standard plug-in wiring harness comes with pre-stripped leads for ease of* installation.
- If End-of-Line Resistors (EOLRs) will not be mounted at the zone sensor furthest from the control, there is a software option to delete their use on zones 2-8. *However, since this eliminates zone supervision for short circuits,* it is not recommended (only N.C. type contacts can be used if EOLRs are not used).
- A wire ID tag has been included for the listing of wire assignments.
- Controls can support up to 3 2-wire smoke detectors on zone 1. (BRK 1400, 2400 or 2400TH).
- A larger No. 4132LG Battery Back Box is available for holding two 6V, 4.0AH lead acid batteries (No. YA-NP46).

*Required for UL installations
**Not UL Listed

Diagram 32. FLUSH MOUNTING - BASIC

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FLUSH MOUNTING WITH TRIM RING

If a "rough-in" ring (4133) has been previously installed in the wall (during new construction; see Diagram 35), disregard step 1 and proceed to step 2, since the required opening for the console is already present. If a wall plate (4136) is installed over the rough-in ring, remove the plate to expose the opening.

Note: The four mounting tabs on the right-hand side of the 4133 rough-in ring must be broken off before flush mounting can be performed.

1. Cut out a 4-3/4" high by 8" wide opening in the wall between studs, no less than 1-1/2" from either stud. See Diagram 34 (A). Use the template provided to mark the cut-out.
2. Insert the four 1-1/2" long #6 screws through the mounting holes in the supplied Trim Ring and then attach the four metal securing clips, as shown in Diagram 34 (B). Use only two or three turns of each screw, allowing the metal clips to hang freely. The clips must not protrude beyond the sides of the Trim Ring or you will not be able to install the Trim Ring into the cut-out in the next step.
3. Install the trim ring into the opening in the wall with the hinge clasps to the right, as in Diagram 34 (D). Making sure the trim ring is straight, tighten each clip screw, making sure that the attached clip slides down into its guide track. As each screw is tightened, the clip will be drawn up against the wall (see Diagram 34 (C)). Tighten each screw until the trim ring is securely held against the wall. DO NOT OVERTIGHTEN.
4. Referring to Diagram 34 (D), install the Console as follows: engage the hinge clasps on the trim ring with the notches located in the back (right-hand side) of the Console's front panel. Swing the left side of the panel toward the trim ring (the panel will pivot on the hinge clasps), and press firmly until the panel "snaps" closed.
5. Use the panel securing screw (supplied with the Console) to secure the left side of the panel, as shown in Diagram 34 (D). Insert nameplate into the recessed area to cover the securing screw (see Diagram 33).

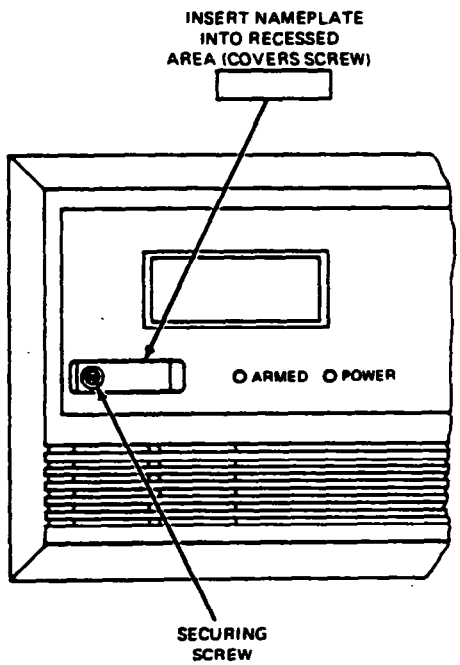

Diagram 33. INSERTING THE NAMEPLATE

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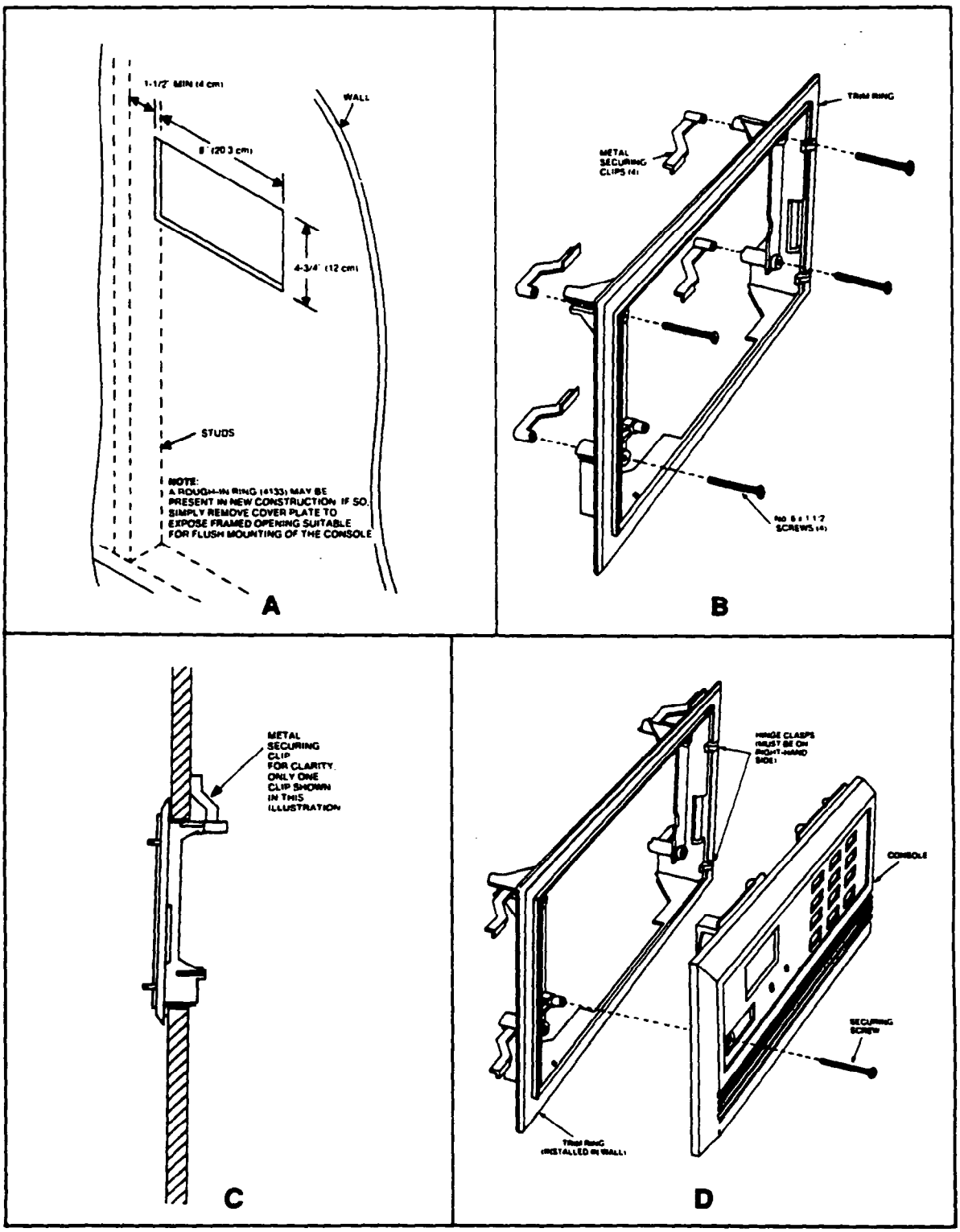
1-1/2" MIN (4 cm)
WALL
8" (20.3 cm)
4-3/4" (12 cm)
STUDS
NOTE:
A ROUGH-IN RING (4133) MAY BE PRESENT IN NEW CONSTRUCTION. IF SO, SIMPLY REMOVE COVER PLATE TO EXPOSE FRAMED OPENING SUITABLE FOR FLUSH MOUNTING OF THE CONSOLE
A
TRIM RING
METAL SECURING CLIPS (4)
No 6 x 1 1/2 SCREWS (4)
B
METAL SECURING CLIP FOR CLARITY, ONLY ONE CLIP SHOWN IN THIS ILLUSTRATION
C
HINGE CLASPS (MUST BE ON RIGHT-HAND SIDE)
CONSOLE
SECURING SCREW
TRIM RING (INSTALLED IN WALL)
D

Diagram 34. FLUSH MOUNTING WITH TRIM RING

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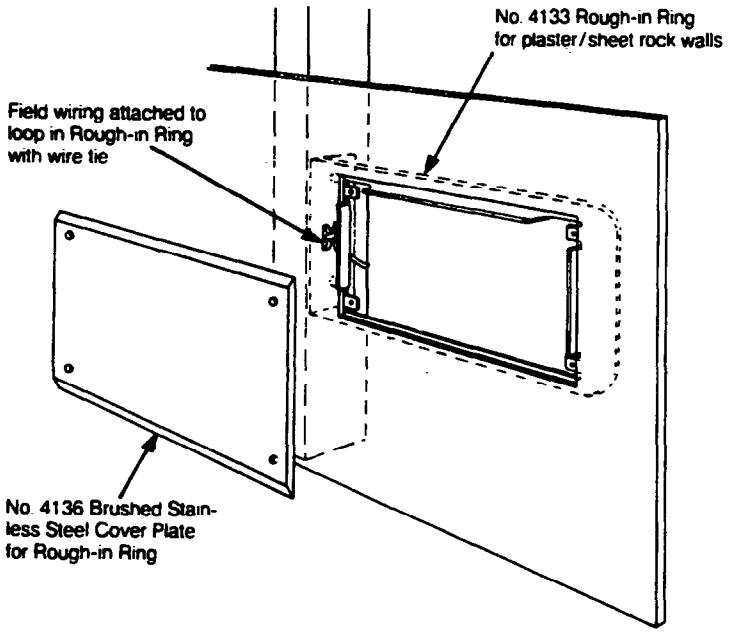

Notes:

- **The No. 4133 Rough-in Ring should only be installed as shown, with the right angle bend on the left-hand side. This positions a bend in the ring's opening at the top of the control, shielding the control from flaking plaster and sheet rock gypsum that could fall into it otherwise. A loop is provided on the right angle bend to which a wire tie can be attached to clamp the field wiring in place for convenient access when the alarm system is installed.**
- The No. 4136 Cover Plate is used in installations where the builder is only sold the alarm wiring, and the sale of the individual alarm system is a final purchaser option. The cover plate will remain in place if the alarm system is never sold.

Applications:

- Residential
- Professional office

Diagram 35. PRE-WIRE/NEW CONSTRUCTION

— C. ADJUSTING THE ALPHA CONSOLE LCD VIEWING ANGLE —

5130XM/5137 ONLY

Insert the end of the small, key-shaped tool (supplied) into the small hole to the left of the console display window (the adjustment screw is recessed in this hole). Turn the adjustment screw to the left or right until optimum viewing is achieved. Be sure to take the height of the users into account when making this adjustment.

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SECTION VII
POWERING THE SYSTEM

PRIMARY POWER

Power to the 4140XM Control panel is supplied by a Plug-In DC Power Pack, 1360, which is rated at 850 mA @ 18 volts DC. The 4130XM and 5130XM Controls are supplied by a 1350 Plug-In DC Power Pack rated at 700mA @18 volts DC. Since these power packs supply unregulated DC, and because they are polarized (+) & (-), caution must be taken when wiring them to the Controls .

BACK-UP POWER

In the event of an AC power loss, all VISTA XM Controls are supported by a back-up, rechargeable gel cell battery. (see the HARDWARE OVERVIEW section for a list of recommended batteries). Up to a 6.0 amp-hour battery can be used, for maximum standby time (see chart below).

TABLE 3. BATTERY STANDBY TABLE

	4130XM/5130XM	4140XM	
AMP-HRS	200 mA Draw	400 mA Draw	700mA Draw
1.2	3.0 hrs.*	not used	not used
4.0	10.0 hrs.	5.0 hrs.*	3 hrs.
6.0	15.0 hrs.	8.0 hrs.	5 hrs.

NOTE: The above figures are approximate, and may vary depending upon the age, quality, and capacity of the battery at the time of the AC loss.
*Required for UL installations.

POWER-UP PROCEDURE

1. Wire the 1350 (1360) DC Power Pack first (before the battery), making sure polarity is correct and the terminal strip (or harness) is connected to the Control panel. Do not plug in at this time.
2. Connect all auxiliary devices, such as consoles, PIRs, etc.
3. Plug the 1350 into an AC outlet. Check that the Auxiliary Voltage measures between 13.5 and 14.0 volts DC. If under 13.5 volts, too much current is being drawn from the Control. See the SPECIFICATIONS section for the current draw of each device.
4. Connect the battery as shown in the POWER CONNECTIONS diagrams. Do not connect the battery if Auxiliary Voltage is below 13.5 volts, as this will prevent the battery from being fully charged.

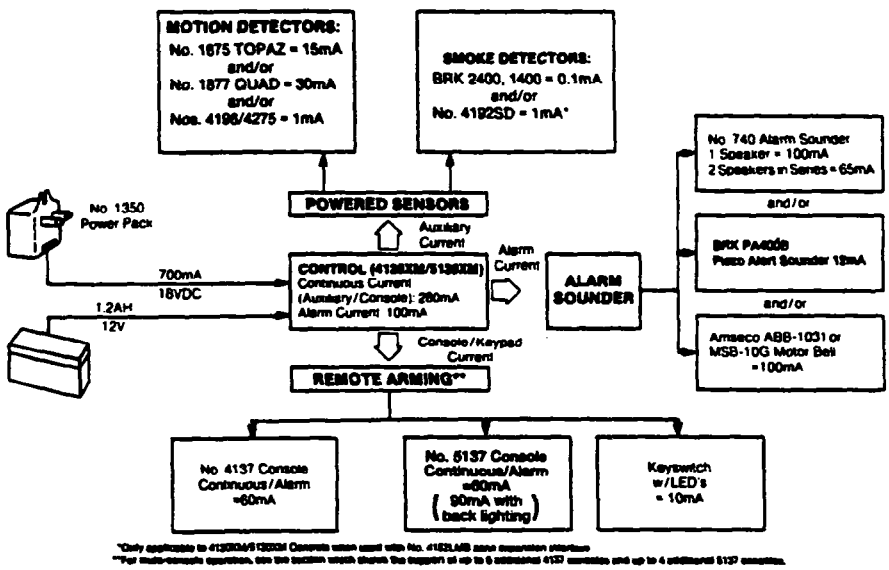

Diagram 36. POWER FLOW CHART

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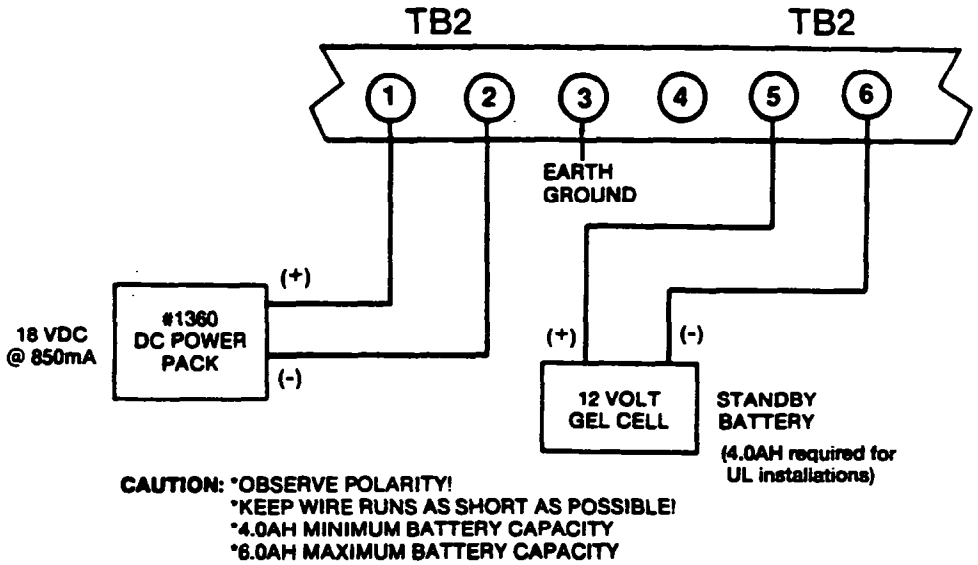
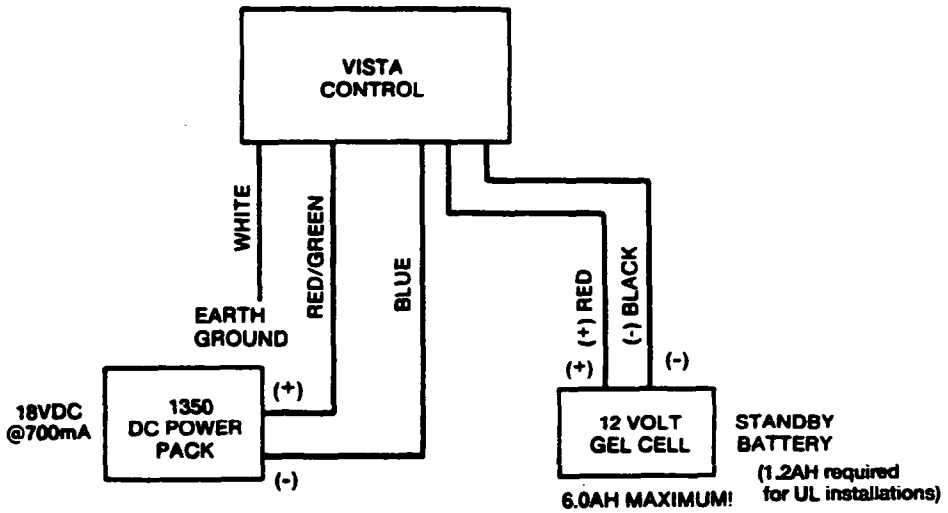
POWER CONNECTIONS

The Power Pack should be located as close as possible to the Control to prevent voltage drops to the Control. A proper earth ground must be provided for the system in order to protect the system from lightning and electrostatic discharge damage. TB2 terminal 3 is the earth ground connection point for the 4140XM, and the white flying lead is the earth ground lead for the 4130XM/5130XM Controls. Connect a lead from this terminal (or white lead) to a proper earth ground. Be sure the voltage trigger outputs and Dialer board are also connected to a proper earth ground. Connect the Power Pack and battery to the Control as shown:



CAUTION: *OBSERVE POLARITY!
*KEEP WIRE RUNS AS SHORT AS POSSIBLE!
*4.0AH MINIMUM BATTERY CAPACITY
*6.0AH MAXIMUM BATTERY CAPACITY

Diagram 37A. 4140XM POWER PACK BATTERY CONNECTIONS



CAUTION: OBSERVE POLARITY!
KEEP WIRE RUNS AS SHORT AS POSSIBLE!

Diagram 37B. 5130XM/4130XM POWER PACK AND BATTERY CONNECTIONS

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SECTION VIII
SYSTEM OPERATION

— A. SECURITY ACCESS CODES —

The VISTA XM System allows up to 22 security access codes to be assigned, each identified by a user ID number. These codes are used to perform system functions. In addition, the system can be programmed to send open/close reports which identify the user by access code ID number (15 maximum for traditional formats).

INSTALLER'S CODE (USER #1)

The installer programs the Installer's Code initially as part of the programming procedure (see PROGRAMMING THE SYSTEM), and this code is the only code that permits re-entry into the programming mode (unless *98 has been previously used to exit the programming mode, see below). The Installer's Code can also be used to perform normal system functions, but cannot assign temporary codes.

The system also provides an Installer Code lock-out feature, which prevents the use of the Installer's Code from re-accessing the Programming mode after the initial programming. This feature is activated by pressing *98 to exit Programming mode. The only way to access Programming mode once this feature is activated, is by powering down the system and powering up again, and then pressing both the * and # keys at the same time within 30 seconds of power up. If re-access to Programming mode using the Installer's Code is desired after initial programming, then exit Programming mode by pressing *99.

NOTE: As shipped from the factory, an initial Installer's code is pre-programmed, and can be changed by the installer to any code desired (field *00). The pre-programmed codes are as follows:

4130XM = 4-1-3-0

4140XM = 4-1-4-0

5130XM = 5-1-3-0

MASTER CODE (USER #2)

The Master Code is the code intended for use by the primary user of the system when performing system functions, and is a permanent code. The factory default master code is 1-2-3-4. For additional security, the Master Code can be used to assign up to twenty temporary codes, which can be used by secondary users of the system who do not have a need to know the Master Code (supervisors, employees, cleaning personnel, tenants, etc.). Each user (ID number 03-22) can be assigned a temporary code which can be individually eliminated or changed at any time.

The installer is considered user 1. The person to whom the Master code is assigned is considered user 2. In some applications (commercial installations, for example), user 2 (with Master Code) will be the primary user of the system. In other applications, user 2 (with Master Code) may not actually be the end user of the system (apartment building owner, for example).

Note that the Master Code (assigned to user 2) and all temporary codes can be used interchangeably when performing system functions (a system armed with a user's temporary code can be disarmed with the Master Code or another user's temporary code).

Temporary user 3 also has the ability to assign and eliminate other temporary user codes (users 4-21). User 22 can only be assigned or changed by user 2.

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TEMPORARY CODES (USERS #3 - #22)

Temporary security codes can be assigned and deleted by user 2 (with Master Code) or user 3 as follows:

User 2: Master Code + CODE key + User # (03-22) + Temporary Code

User 3: User 3's CODE + CODE key + User # (04-21) + Temporary Code

User numbers must be entered as 2-digit entries. Single digit user numbers must, therefore, always be preceded by a "0" (example, 03, 04, 05, etc.). Make sure the end user understands this requirement.

User 2 can assign temporary codes to all users, 3-22. User 3 can assign temporary codes only to users 4-21. The system will emit a single beep when each temporary code has been successfully entered.

Note: When a temporary code is inadvertently repeated for different users, or one user's code is another's duress code (see below), the lower user number will take priority.

To delete temporary codes, do the following:

Master Code + CODE key + User # + Master Code

Note that user 3 cannot delete the temporary code assigned to user 22.

IMPORTANT!: Unless Ademco Contact ID reporting is used, only user codes #1 - #15 can uniquely report to the central station using the communication formats provided. Users #16 - #22 will report as User #15, if enabled for open/close reporting, for the other reporting formats.

DURESS CODE

The VISTA System duress code is a means of sending a silent alarm to a central monitoring station if the user is being forced to disarm (or arm) the system under threat. This feature is only useful if the system is connected to a central station. When the system's Auxiliary Voltage Triggers are connected to another communication's media (Derived Channel/Long Range Radio), note that duress is signalled on the same trigger that signals silent panic (whereas duress has its own unique report when digitally communicated).

The duress code is simply the usual security code, but with the fourth digit increased by 1. For example, if the security code is "1 2 3 4", the duress code is "1 2 3 5". When used, the system will disarm (or arm), but will also send a silent alarm to the central station. There will be no indication at the console that an alarm was sent.

Note that duress codes are not available for security codes ending in the digit "9".

IMPORTANT!: Users of temporary codes should be instructed to enter their codes carefully, to avoid the possibility of accidentally entering the duress code.

Do not assign sequential temporary codes 1 digit apart from each other (ex. 4096, 4097, 4098) as this will cause a Duress to be sent each time (one user's code is another user's duress code).

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— B. KEYPAD FUNCTIONS —

INTRODUCTION

The VISTA XM system provides four modes of burglary protection: STAY, AWAY, INSTANT, and MAXIMUM. In addition, if any zones are faulted prior to arming (NOT READY condition), the console can display them one at a time, and specific zones can be selectively bypassed.

When an alarm occurs, console sounding and external sounding will occur, and the zone(s) in alarm will be displayed on the console. Pressing any key will silence the console sounder for 10 seconds. Disarming the system will silence both console and external sounders. When the system is disarmed, any zones that were in an alarm condition during the armed period will be displayed (memory of alarm). To clear this display, simply repeat the disarm sequence (enter the security code and press the OFF key).

The VISTA XM consoles also feature chime annunciation, and 3 panic key pairs (for silent, audible, fire or personal emergency alarms) which can notify the central station of an alarm condition, if that service is connected.

Note that if QUICK ARM is enabled (field *29), the [#] key can be pressed instead of entering the security code, for any of the arming procedures listed below (Away, Stay, Instant, Maximum).

DISARMED NOT READY

Before arming, the system must be in the READY condition (all zones must be intact). If the "NOT READY" message appears, press the READY [*] key to display all faulted zones.

ARMING: AWAY (CODE + AWAY)

This mode arms all protection zones, interior and perimeter and provides entry/exit delays.

Enter the security code and press the AWAY key.

ARMING: STAY (CODE + STAY)

This mode arms perimeter zones only, allowing free movement inside, and provides entry/exit delays.

Enter the security code and press the STAY key.

ARMING: INSTANT (CODE + INSTANT)

This mode is similar to STAY mode, but INSTANT mode eliminates the entry delays. Exit delay remains.

Enter the security code and press the INSTANT key.

ARMING: MAXIMUM (CODE + MAXIMUM)

This mode is similar to AWAY mode, but MAXIMUM mode eliminates the entry delays. Exit delay remains.

Enter the security code and press the MAXIMUM key.

DISARMING (CODE + OFF)

To disarm the system and silence alarm sounder.
Enter the security code and press the OFF key.

BYPASSING ZONES (CODE + BYPASS + ZONE NUMBER)

If desired, the system can be armed with one or more zones left unprotected (bypassed). To bypass zones, first be sure the system is disarmed. Enter the security code, press the BYPASS key, and then enter all the zone number(s) (using 2-digit entries) that are to be bypassed. Single digit zone numbers must be preceded by a zero (i.e. 01 for zone 1, etc.). After all entries are made, the console will display the bypassed zones one at a time. Once zones have been displayed, the system can be armed as usual. Failure to wait for the sequential display can result in the loss of the bypasses. Bypasses are removed when the system is disarmed. Note that Fire zones cannot be bypassed.

To display bypassed zones (before arming the system), enter the security code and press the BYPASS key. All bypassed zones will be displayed sequentially.

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CHIME MODE (CODE + CHIME)

The system can be set to annunciate any opening of entry/exit or perimeter zones (doors, windows) while the system is disarmed. Enter the security zone and press the CHIME key. Repeat to turn chime mode off.

VIEWING MESSAGES FROM THE CENTRAL STATION

For 5130XM or 4140XM with 5137 consoles only.
Users may occasionally receive messages on the console display from their central monitoring station. When this occurs, the console will display "Message. Press 0 for 5 secs.". Instruct the user to press and hold the 0 key to display the central station's message. Note that the system must be in the READY state to view these messages.

USING THE BUILT-IN USER'S GUIDE

For 5130XM or 4140XM with 5137 consoles only.
An abbreviated User's Manual is stored in the system's memory, and can be particularly useful to the end user if the printed User's Manual is not conveniently accessible when the user needs to perform a seldom used and unfamiliar system procedure. The Built-in User's Guide is displayed by simply pressing any of the function keys (e.g., OFF, AWAY, STAY, MAXIMUM, BYPASS, INSTANT, CODE, TEST, READY, #, and CHIME) for approximately 5 seconds and then releasing it. Abbreviated instructions relative to the key that has been pressed will then be displayed (2 lines of text are displayed at a time). This function is available when the system is in the armed or the disarmed state.

DISPLAYING DESCRIPTORS

For 5130XM or 4140XM with 5137 consoles only.
The Alpha Consoles can display all programmed descriptors, which is useful to the installer when checking entries, and can be helpful to the user when there is a need to identify zones. To display descriptors, press and hold the READY key until the built-in instructions for that key appear, then release the key. The zone descriptors will appear one at a time, for about 2-3 seconds each. For faster viewing, press the READY key to display the next descriptor in numerical order and so on. When all descriptors have been displayed, the Control will exit display mode. To exit display mode before all descriptors have been displayed, enter the security code and press the OFF key.

PANIC KEYS

There are three pairs of keys ([* + 1], [# + 3], [* + #]) that, if programmed, can be used to manually initiate alarms and send a report to the central station. Each pair of keys can be individually programmed for 24 Hour Silent, Audible or Auxiliary (Emergency) responses. The panic function is activated when the appropriate pair of keys are pressed at the same time. Refer to the ZONE DEFINITIONS section for additional information regarding these functions.

The panic functions are identified by the system as follows:

PANIC PAIR	Displayed as Zone
* + 1	95
# + 3	96
* + #	99

For 5130XM/4140XM with 5137 consoles, these panic keys can also be programmed with an alpha descriptor.

IMPORTANT: For the Panic functions to be of practical value, the system must be connected to a central station.

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— C. TROUBLE CONDITIONS —

The word "CHECK" on the Console's display, accompanied by a rapid "beeping" at the Console, indicates that there is a trouble condition in the system. The audible warning sound can be silenced by pressing any key. Instruct users to call for service immediately upon seeing any of the following messages.

"CHECK" MESSAGES

- A display of "CHECK" accompanied by a display of one or more zone descriptor(s) (5130XM/5137) or numeric zone ID(s) (4130XM/4137) indicates that a problem exists with those zone(s). First, determine if the zone(s) displayed are intact and make them so if they are not. If the problem has been corrected, key an OFF sequence (Code plus OFF) to clear the display.
- A display of the word "CHECK" accompanied by a numeric display of "97" indicates that a short exists on the Polling Loop and may eliminate some of the protection. Fault "97" can be assigned an alpha descriptor when using the 5130XM or 4140XM with the 5137 console.
- A display of the word "CHECK" accompanied by a numeric display of "88", "89", "90", or "91" indicates a 4280 Receiver problem. Refer to the WIRELESS paragraphs in the TROUBLESHOOTING section for more information. Faults "90" & "91" can be assigned alpha descriptors when using the 5130XM or 4140XM with the 5137 console. Note that if a second 4280 is used, trouble conditions for it are identified by zone numbers "88" & "89" which cannot be assigned alpha descriptors.

OTHER TROUBLE CONDITIONS

- A display of "COMM. FAILURE" (5130XM/5137) or "FC" (4130XM/4137) at the Console indicates that a failure occurred in the telephone communication portion of your system.
- A display of "LO BAT" (5130XM/5137) or "BAT" (4130XM/4137) and a zone descriptor, accompanied by a once per minute beep at the Console indicates that a low battery condition exists in the wireless transmitter displayed. The audible warning sound may be silenced by pressing any key. A display of "SYSTEM LO BAT" (5130XM/5137) or "BAT" with no zone ID (4130XM/4137) indicates that a low battery condition exists with the system's backup battery.
- A display of "4280 SET UP ERROR" (5130XM/5137) or "E8" (4130XM/4137) at the console indicates that a 4280-8 receiver is being used in a system with more than 8 RF zones programmed. If this is not corrected, none of the zones in the system will be protected. If more than 8 RF zones are desired, a 4280 Receiver must be used.

POWER FAILURE

If the POWER indicator is off, and the message "AC LOSS" (5130XM/5137) or "NO AC" (4130XM/4137) is displayed, the Console is operating on battery power only. Check the following:

- At the premises, check circuit breakers and fuses and reset or replace as necessary.
- Check to see that your system's plug-in Power Pack has not been accidentally pulled out.
- Instruct the user to call a service representative immediately if AC power cannot be restored.

NOTE: The power indicator may extinguish immediately upon power failure, but the display message could take up to 2 minutes to appear. Conversely, the power indicator may light immediately upon power being restored, but it could take up to 2 minutes after power is restored for the display message to change.

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— D. RECALLING ALARM & TROUBLE MESSAGES —

The system's alarm memory retains all events for a period of 10 days, starting at the time of the first event. Upon expiration of the 10-day period, all history is automatically erased and the alarm memory will reset. The next 10-day cycle will begin when the next event occurs.

To display the 10-day history, enter the security code and press the 0 key.

Recall by service personnel (using the entry indicated above) will display all events that have occurred from the start of the 10-day cycle to the time of recall. Note that Recall will end any 10-day cycle in progress. The LCD display on the 4130XM/4137 console will indicate the number of the zone in which the event occurred (e.g., 01, 02, etc.), accompanied by the word CHECK (trouble), ALARM and, if applicable, FIRE, to describe the type of event that occurred in the displayed zone. If a 5130XM/5137 is used, an alpha descriptor of the zone will be displayed in addition to its zone number. If more than one event had occurred, the events will be displayed in numerical sequence. Each display will appear for 1-2 seconds, then the next event will be displayed. When all events have been displayed, the displays are repeated.

To exit Recall, enter the security code and press the OFF key. At this point, all existing memory is erased and the alarm memory is reset. The 10-day cycle will start again only when the next event occurs.

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SECTION IX
SYSTEM COMMUNICATIONS

— A. DIGITAL COMMUNICATOR OPERATION —

4171XT-XM/4171XM

The 4171XT-XM Dialer Board is required for polling loop and/or wireless zone expansion, and for office initiated downloading, and is also used to communicate with the central station via dial network telephone line, if that service is desired. The 4171XM can be used if only central station communication and site initiated downloading is desired. The 4171XM does not support system zone expansion or office initiated downloading.

When there is a report to be transmitted, the communicator first seizes the line to prevent it from being blocked by outgoing calls or by a phone left off hook. A short hang-up is executed to insure that any outgoing calls are disconnected. The communicator then goes off hook and begins to wait for the PABX dial tone (if a PABX number is programmed) or the external telephone company dial tone. The communicator waits up to 4 seconds for the PABX dial tone or up to 5, 11 or 30 seconds (whichever is programmed in field *42) for the external dial tone.

If dial tone detect is disabled in field *43, the communicator will dial after the programmed wait time in field *42 (5, 11, or 30 secs.). If detection is enabled, the communicator will dial when it hears dial tone. But if dial tone is not heard, it will dial after the programmed wait time (*42).

CAUTION: 1. If the communicator is connected to a telephone line inside a PABX, be sure the PABX has a back-up power supply that can support the PABX for 24 hours. Many PABXs are *not* power backed up and connection to such a PABX will result in a communication failure if power is lost.

2. Refer to phone line hook-up for proper line seizure connections.

NOTE: The system can be programmed to delay alarm reporting for 16 seconds (field *88), which can help avoid transmission of user-caused false alarms by providing 16 seconds to disarm the system. If the alarm condition remains after 16 seconds, the report will be sent.

TWO PHONE NUMBERS

Two different telephone numbers (primary and secondary; fields *33 & *34) can be programmed. Note that if a secondary phone number is used, a secondary subscriber ID number must be assigned (see fields *32 & *90). The telephone number dialed depends on the report to be sent and on the report routing option (dual, split or back-up reporting) that is enabled. If dual reporting is enabled (field *51), all reports are transmitted to both numbers. If split reporting is enabled (field 1*31), each report is transmitted to its assigned number. Back-up reporting is also available, and is automatically enabled if a secondary phone number is programmed. Backup reporting sends reports to the secondary number only if attempts to get through to the primary number are unsuccessful.

After dialing the telephone number, the communicator will wait up to 30 or 60 seconds, whichever is programmed (field *45 & *47), for the receiver's acknowledgment tone (handshake). The communicator will begin transmitting its reports when the acknowledgment tone is received. If the acknowledgment tone is not detected during the programmed waiting period, then the communicator will hang-up and pause for 30 seconds, insuring that any incoming calls are disconnected before attempting to dial again ("Anti-Jam"). The communicator will make 8 attempts to transmit a report to one or both telephone numbers, depending upon the report routing option programmed. After the eighth attempt, the communicator will hang-up and a Comm Failure (5130XM/5137) or FC message (4130XM/4137) will be displayed at the Console.

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REPORTS

Reports are transmitted using the programmed format. When a report is transmitted, up to 4 message rounds are sent. After each round, the communicator looks for the receiver's kissoff tone. If the kissoff tone is not detected, the communicator will pause for 2 seconds before transmitting the next round. If kiss-off is not heard after the four rounds, the communicator will hang up and redial to try again.

— B. COMMUNICATION FORMATS —

IMPORTANT!:

- **Up to 15 events/zones and users can be uniquely reported using 3+1/4+1/4+2 Ademco Low Speed, Sescoa/Radionics or Ademco High Speed (DTMF) formats.**
- **Up to 27 events/zones and 15 users can be uniquely reported using 4+2 Express (685 Receiver requires Rev. 4.3 or higher software) or 4+2 Expanded Zone reporting (Ademco Low Speed, Sescoa/Radionics).**
- **Up to 64 events/zones and 22 users can be uniquely reported using Ademco's Contact ID format (685 Receivier requires Rev. 4.4 or higher software).**

TYPES

The VISTA XM Controls can send reports in any of the following communication formats:

- 3+1/4+1 ADEMCO LOW SPEED, 10 pps, standard or expanded.
- 3+1/4+1 SESCOA/RADIONICS, 20 pps, standard or expanded.
- 4+2, ADEMCO 10 pps or SESCOA/RADIONICS 20pps, standard or expanded
- 4+2, EXPRESS (ADEMCO proprietary, DTMF)
- CONTACT ID (ADEMCO proprietary, DTMF)
- ADEMCO HIGH SPEED (DTMF)

ADEMCO LOW SPEED

ADEMCO LOW SPEED is a pulsed format which responds to a 1400 Hz handshake and kiss-off, and transmits data with 1900Hz pulse tones @ 10 pulses per second (pps). A typical message consists of two rounds which must be verified by the receiver. If both rounds match, the message is validated, and kissed off. A complete standard report consists of either a 3 or 4-digit account number followed by a 1-digit alarm code. Even though 2 rounds are sent, only the valid report is displayed on the receiver:

Ex: 1 2 3 4 3

In expanded reporting, two messages are sent, two rounds per message, the first being the account number and alarm code, the second being the zone (or channel) to which the alarm was assigned. A complete expanded report consists of a 3 or 4-digit account number followed by a 1-digit alarm code, then the alarm code is repeated, followed by the channel number:

Ex: 1 2 3 4 3 (code 3)
3 3 3 3 9 (channel 9)

To enable Ademco Low Speed reporting, enter a **0** in *46. To enable expanded low speed, enter **1** in *55-*60 for the desired expanded reports.

SESCOA/RADIONICS

Standard and expanded reporting in the SESCOA/RADIONICS format is virtually the same as ADEMCO Low Speed except for the following:

1. The handshake and kiss-off frequency is 2300 Hz.
2. The data is transmitted with 1800 Hz pulse tones.
3. The rate of transmission is 20 pps.

To enable SESCOA/RADIONICS reporting, enter a **1** in *46. To enable expanded reporting, enter 1 in *55-*60 for the desired expanded reports.

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4+2 REPORTING

A 4+2 report consists of a 4-digit account number and a 2-digit alarm code, or event code.

4+2 reports can be accomplished in two ways:

1. Either in ADEMCO Low Speed (10 pps), or SESCOA/RADIONICS (20 pps) format.
2. Either in "standard" or "expanded" zone reporting.

The terms "standard" and "expanded" have a slightly different meaning than previously described. In 4+2, standard zone reporting sends a 4-digit account number followed by a 2-digit code, where the first digit is the ALARM code and the second digit is the channel to which the zone alarm was assigned. A report would look as follows:

1 2 3 4 3 9 (code 3, channel 9)

In 4+2 expanded zone reporting a unique 2-digit code for each zone "event" (27 zones max) is reported. A 4-digit account number followed by a 2-digit code is sent, where the first digit is the actual event, such as in ALARM, RESTORE, or TROUBLE, etc., and the second digit of the code represents the "zone" where the event occurred. (but not necessarily the actual zone number). Each code in itself is unique to a specific zone! A report might look as follows:

1 2 3 4 5 9 ("5 9" might be a unique "TROUBLE RESTORE, ZONE 25).

To enable 4+2 standard reporting enter a 1 in field *54, and use fields *61 through *71 for programming channels and codes. Do not make any entries in fields *72-*81. To enable 4+2 expanded reporting, enter a 1 in field *53, and use fields *72 through *81 to program up to 27 zones for unique event reporting. Do not make any entries in fields *61-*71.

4+2 "EXPRESS"

ADEMCO's new Express format provides the same information as the 4+2 Expanded format, but with three differences:

1. The data is transmitted in DTMF (Dual Tone Multi-Frequency, known as "TouchTone", at the rate of 10 characters per second). This greatly decreases the time it takes a report to go through to central station. An average 4+2 Low Speed report might take as long as 20 seconds to complete its report, but 4+2 Express takes under 3 seconds!
2. Two message rounds are eliminated by the use of a checksum digit. Instead of the communicator sending 2 rounds per report, it sends only 1 round with a checksum digit at the end. Doing this also helps in decreasing the time it takes for a report to be sent. (CHECKSUM is explained further at the end of this section).
3. The handshake frequency is 1400 Hz followed by 2300 Hz, and the kissoff frequency is 1400 Hz.

To enable 4+2 Express, enter a 2 in field *46, and a 1 in field *53. Then use fields *72 through *81 to program up to 27 zones for unique event reporting.

IMPORTANT:

1. Do not make any entries in fields *61-*71.
2. If the installation uses zones 28-64 and this format is selected, events in zones 28-64 will not be transmitted.

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CONTACT ID REPORTING

Contact ID Reporting provides faster transmission speed and very specific event code reporting, resulting in faster, more confident alarm decision making by the central station, when compared to the other reporting formats available (Ademco Low Speed, Sescoa, Radionics, etc.). This is the only format that can identify all 64 protection zones by their unique zone (Contact) ID numbers, and provides a 1-digit event qualifier and 3-digit, specifically defined event code.which quickly identifies the condition being reported. This format is supported by Ademco 685 Digital Receivers operating with Rev. 4.4, or higher, software (Rev. 4.4 can only be supported in 685 Digital Receivers equipped with the 685-48 expanded memory card).

Contact ID reports in DTMF (Dual Tone Multi-Frequency @ 10 characters per second) and responds to a 1400 Hz followed by 2300 Hz handshake, and a 1400 Hz kissoff. This format also uses checksum instead of two message verification. A complete report takes under 3 seconds.

To enable contact ID reporting, enter a "1" in field 1*32. To choose which zones are to be reported enter random, *non-zero* values (01-15) in fields *61-*64 for zones 1 through 27, fields *65-*68 for non-alarm reports and fields 1*35 - 1*39 for zones 28 through 64, and fields 1*42 and 1*43 to enable RF Supervisory zones 88, 89, 90 & 91. (Note: A "00" in any of these fields will eliminate the report!). DO NOT enter the same value for all zones, as this will affect how quickly swinger supression will disable communication.

ADVISORY

Ademco's new Contact ID reporting is capable of uniquely reporting all 64 zones of information, as well as openings and closings for all 22 users, to central stations equipped with the Ademco 685 receiver using software level 4.4 or higher. 685 software levels below 4.4 cannot support Contact ID reporting. For information regarding updating the 685 receiver, contact Ademco's Technical Support group at 1-800-645-7492.

TABLE 4. CONTACT ID REPORTING CODE DEFINITIONS

Contact ID Reporting takes the following format: CCCC Q EEE GG ZZZ where:

CCCC = Customer (subscriber) number.
Q = Event qualifier, where: E=new event (1) and R= restore (3)
EEE = Event code (3 hexadecimal digits), defined in the table below.
GG = Always 00.
ZZZ = Zone/contact ID number reporting the alarm (001-099), or user number (001-022) for open/close reports. System status messages (AC Loss, Walk Test, etc.) contain zeroes in the SSS location.

EVENT CODES:

Code	Definition	Code	Definition
110	Fire Alarm	342	Trouble-Poll Loop Short
121	Duress	343	Trouble-Exp. Mod. Trble
122	Silent Panic	380	Trouble
123	Audible Panic	381	Loss of Supervision - RF
131	Perimeter Burglary	383	Sensor Tamper
132	Interior Burglary	384	RF Transmitter Low Battery
133	24 Hour Burglary	401	O/C By User
134	Entry/Exit Burglary	403	Power-Up Armed
135	Day/Night Burglary	406	Cancel
142	Polling Loop Short Alarm	407	Remote Arm (Download)
143	4152LMB Module Failure	408	Quick Arm
150	24 Hour Auxiliary	409	Keyswitch O/C
301	AC Loss	411	Call back Requested
302	Low System Battery	570	Bypass
305	System Reset	601	Manually Triggered Test
306	Program Tamper	602	Periodic Test
309	Battery Test Fail		

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ADEMCO HIGH SPEED REPORTING

ADEMCO's High Speed format transmits data in DTMF at a rate of 10 characters per second. The handshake frequency is 1400 Hz followed by 2300 Hz, and the kissoff frequency is 1400 Hz. The message contains 13 digits as follows: A 4-digit account number + eight channels of zone information (1-8 or duress plus 9-15) + one status channel, which identifies the type of events being reported in the eight zone locations. A typical High Speed report will be kissed off in under 5 seconds.

Channels 1 through 8 might have one of the following conditions:

1 = NEW EVENT

2 = OPENING (Status Channel Always = 2)*

3 = RESTORE

4 = CLOSING (Status Channel Always = 4)*

5 = NORMAL, NO EVENT TO REPORT

6 = PREVIOUSLY REPORTED, NOT YET RESTORED]

* NOTE: Channel 1 will contain the user ID 1-9, A-F if expanded Open/Close reporting is selected.

The status channel might have one of the following conditions:

1 = DURESS (For Duress Plus Channels 9-15 Only)

2 = OPENING

3 = BYPASS (For Channels 1-8 Only)

4 = CLOSING

5 = TROUBLE (For Channels 1-8 Only)

6 = SYSTEM STATUS:

- AC LOSS in Channel 1
- LOW BATTERY in Channel 2
- PROGRAM TAMPER in Channel 3
- POWER ON RESET in Channel 4

7 = NORMAL ALARM STATUS (For Channels 1-8 Only)

9 = TEST REPORT

A typical high speed report may look as follows:

1234 5115 5555 7 (Acct #1234 with alarms on channels 2 and 3)

To enable Ademco high speed reporting enter a 2 in field *46. To choose which zones are to report, enter the channel you wish each zone to report on (zone 1 = channel 01, etc.) in fields *61 - *64, 1*35-1*39. In fields *65 - *68, enter 01 for desired reports (If 00 is entered, no report will be sent).

LIMITATIONS

1. When using Ademco high speed, remember there are only 15 channels available, plus a duress channel. If more than 15 zones are being used, they will have to share channels.
2. With high speed reporting, channels 9-15 cannot report troubles or bypasses. Use these channels for zones that will not have to report these conditions.

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High Speed Message Examples

	Subscriber Identification	Channel Number 1	2	3	4	5	6	7	8	9
Message 1:	5890	5	1	5	5	1	6	5	5	7
Message 2:	5890	5	3	5	5	6	6	5	5	7
Message 3a:	0135	5	5	1	5	5	5	5	5	3
Message 3b:	0135	5	5	3	5	5	5	5	5	3
Message 4a:	5890	5	1	5	5	5	5	5	5	5
Message 4b:	5890	5	3	5	5	5	5	5	5	5
Message 5a:	0135	1	5	5	5	5	5	5	5	6
Message 5b:	0135	3	5	5	5	5	5	5	5	6
Message 5c:	0135	5	1	5	5	5	5	5	5	6
Message 5d:	0135	5	3	5	5	5	5	5	5	6
Message 5e:	0135	5	5	1	5	5	5	5	5	6
Message 5f:	0135	5	5	5	1	5	5	5	5	6

Message Example Explanations

1. At subscriber #5890, channels 2 and 5 go into alarm (and initiate a call) and channel 6, which has previously reported an alarm is still triggered.
   Channel 2: NEW ALARM
   Channel 5: NEW ALARM
   Channel 6: PREVIOUSLY REPORTED ALARM still in effect)

2. Still at subscriber #5890, following the events of example 1 above, channel 2 restores (initiating the call) and channels 5 and 6 remain in alarm:
   Channel 2: NEW RESTORE
   Channels 5,6: PREVIOUSLY REPORTED ALARMS still in effect)

3a. Subscriber #0135 bypasses faulted zone 3.

3b. Bypass restorals are transmitted when the restoral takes place.

4a. If a trouble condition occurs in Zone 2 for subscriber #5890, a trouble report is transmitted.

4b. Zone trouble restoral is transmitted as soon as it occurs.

5. If a system trouble condition occurs, a separate trouble message format exists as in the following:

5a. For Loss of AC Reporting (Channel 1 is used)

5b. For AC Restoral

5c. For Low Battery Reporting (Channel 2 is used)

5d. For Low Battery Restoral

5e. For Program Tamper (Channel 3 is used)

5f. For Power On Reset Reporting (Channel 4 is used)

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CHECKSUM

Checksum is a means of verifying a communicator report without sending two message rounds. The way this works is as follows:

When the communicator has to send a report it quickly totals all of the digits in the report (Account Number + Report Code). It then adds to that total another digit, so that the grand total is evenly divisible by 15. This "other" digit is the Checksum digit. For example:

1234 3 is the report to be sent:

1 + 2 + 3 + 4 + 3 = 13 total

13 plus "2" (checksum digit) = "15" Grand Total:

"15" is evenly divisible by 15!

When the receiver gets the message, it simply adds up the individual message digits received and divides by 15. If evenly divisible, the report is valid!

Note: 3+1 Low Speed (standard or expanded), 4+2 Low Speed (standard or expanded), and High Speed reporting can be enabled to report with checksum instead of 2-round verification by entering a "1" in field *49. 4+2 Express, and Contact ID automatically send checksum, and do not have to have this feature enabled.

LIMITATIONS

If reporting in 3+1 Low Speed format with checksum, be sure that the 685 Digital Receiver is also set for 3+1 with checksum, otherwise there might be confusion as to the meaning of the reports. If reporting in 4+1 Low Speed do not enable checksum because it will appear as a 4+2 report on the central station's receiver, and might cause confusion as to the meaning of the report!

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TABLE 5. LOW SPEED DIGITAL COMMUNICATION MESSAGE FORMATS

Report	Standard	Expanded	4+2 Expanded
Alarm	SSS(S) A	SSS(S) A	SSSS ACh
		AAA(A) Ch	
Trouble	SSS(S) T	SSS(S) T	SSSS TCh
		TTT(T) Ch	
Bypass	SSS(S) B	SSS(S) B	SSSS BCh
		BBB(B) Ch	
AC Loss	SSS(S) E	SSS(S) E	SSSS EAc
		EEE(E) Ac	
Low Battery	SSS(S) L	SSS(S) L	SSSS LLb
		LLL(L) Lb	
Open	SSS(S) O	SSS(S) O	SSSS OU
		OOO(O) U	
Close	SSS(S) C	SSS(S) C	SSSS CU
		CCC(C) U	
Cancel	SSS(S) X	SSS(S) X	SSSS Xø
Test	SSS(S) Te	SSS(S) Te	SSSS Teø
Power Up Reset	SSS(S) P	SSS(S) P	SSSS Pø
Program Tamper	SSS(S) M	SSS(S) M	SSSS Mø
Restore:			
Alarm	SSS(S) R	SSS(S) R	SSSS RCh
		RRR(R) Ch	
AC Loss	SSS(S) R	SSS(S) R	SSSS RAc
		RRR(R) Ac	
Low Battery	SSS(S) R	SSS(S) R	SSSS RLb
		RRR(R) Lb	
Trouble	SSS(S) RT	S S S (S) Rt	SSSS RtCh
		RTRTRT(RT)Ch	
Bypass	SSS(S) RB	S S S (S) Rb	SSSS RbCh
		RBRBRB(Rb)Ch	

Where:

SSS or SSSS = Subscriber ID
A = Alarm Code
ø = Zero
Ch = Channel Number
T = Trouble Code
B = Bypass Code
E = AC Loss Code (1st Digit)
Ac = AC Loss Code (2nd digit)
X = Cancel Code
P = Power Up Reset Code
M = Program Tamper Code
L = Low Battery Code (1st digit)
Lb = Low Battery Code (2nd digit)
O = Open Code
C = Close Code
U = User Number
Te = Test Code
R = Restore Code (Alarm, AC Loss, Low Battery)
Rt = Restore Code (Trouble)
Rb = Restore Code (Bypass)

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SECTION X
PROGRAMMING THE SYSTEM

— A. GENERAL INFORMATION —

EEROM MEMORY

System programming options are stored in non-removable, electrically erasable, non-volatile EEROM memory (removal of power will not result in the loss of the information). Consequently, it is possible to program the system at any time - even at the installer's premises prior to the actual installation. Simply apply power temporarily to the Control and then program the unit as desired. These options must be programmed for the particular installation to establish its specific alarm and reporting features.

LOCAL/REMOTE PROGRAMMING

The Control can be programmed from the keypad or from a computer terminal using the VISTA XM Downloading software (see DOWNLOADING section). When programming from the 5130XM/5137 consoles, prompts for each field description (only field number will be displayed on the 4130XM/4137 consoles) and field number will be displayed; also, each entry is displayed as it is keyed in. After programming, values that have been entered in each field can be reviewed and, if neccesssary, modified.

PRE-PROGRAMMED COMMUNICATION FORMATS

The system is shipped with a set of standard pre-programmed values that are designed to meet the needs of many installations. However, these can be altered by the installer to suit the specific needs of a particular installation or installation company. In addition, four sets of pre-programmed communicator defaults are available which may be loaded by the installer, each set designed for a specific communication format (see SUMMARY OF CONNECTIONS section for list of values). These, too, may be altered to suit the needs of a particular installation.

IMPORTANT!: If any of these communication pre-programmed formats are to be used, they *must* be programmed (using the appropriate command) *before* any other field programming is performed.

TWO SETS OF PROGRAMMING FIELDS

The programming fields are grouped into two sets of addresses. The first set of fields includes addresses *00 - *90, and is accessible as soon as programming mode is entered. When in the first set of fields, the 5130XM/5137 consoles will display "PROGRAM MODE" and will put a hyphen in front of the field address, while the 4130XM/4137 consoles will simply display the field address.

The second set of field addresses is accessed by pressing *94, while in programming mode, and are referred to in this document by a "1" in front of the address (ex. 1*32). The alpha consoles (5130XM/5137) will indicate this by displaying the words "ALT PROGRAM MODE" on the top line of the display, and displaying a "1" in front of the field address (i.e. field *32 of the second set of addresses is displayed as 132). The 4130XM/4137 consoles will display the word CHECK when the second set of addresses is accessed. The second set of fields includes addresses 1*00 - 1*49. To return to the first set of fields, press *99, noting that the alpha consoles display the words "PROGRAM MODE", and the word CHECK disappears from the 4130XM/4137 displays.

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PROGRAMMING STEPS

1. Enter Programming mode

Programming mode can be entered in one of two ways.

1) By depressing the [*] and [#] keys at the same time within 30 seconds after power is applied to the Control.

2) By keying the installer code, followed by depression of CODE + 0 + 0 keys. The factory installer code can be changed once in the program mode.

Immediately following entry into the program mode, the following will be displayed on a 5130XM/5137: Program Mode

* Fill # View - 00

The 4130XM/4137 consoles display: 00

Following the above display, the system is ready to be programmed for the communication format parameters, or accept entries for the first address (00).

2. Set Standard Defaults

Once the Programming mode is entered, clear the system's memory by pressing *97. This ensures all program fields are set to their factory set, pre-programmed values.

3. Set Communication Format Defaults (if desired)

If the system is to be connected to a central station via telephone line, the appropriate communication format settings should be programmed now. VISTA provides four sets of pre-programmed communication formats, which, if used, fill all appropriate fields with preset values (see SUMMARY OF CONNECTIONS section for list of values). These values can be modified later as desired. To pre-program a particular communication format, use the following chart:

Key	Format Selected	Comments
*94 + *80	Standard Low Speed 3+1/4+1	9 zones
*94 + *81	Expanded Low Speed 3+1/4+1	9 zones
*94 + *82	Ademco High Speed	9 zones
*94 + *83	Expanded 4+2	17 zones

IMPORTANT!: Pre-programming of one of these formats *must* be performed *before* any other field entries are made.

4. Program the data fields

To program the first set of fields (fields 00-90), simply press the [*] key plus the 2-digit field address (for example, press *01 for field *01), then make the required entry. To program the second set of fields (fields 1*00-1*49), press *94, and note that the alpha consoles display the words ALT PROGRAM MODE, and the 4130XM/4137 consoles display the word CHECK. Once the console indicates that it has accessed the second set of addresses, simply press the [*] key plus the 2-digit field address (ex. *01 for field 1*01) and make the required entry. To return to the first set of fields, press *99.

When a data field has been completely programmed, the console will "beep" three times and then automatically display the next data field address in numerical order. If the number of digits that you enter in the data field is less than the maximum permitted (for example, phone number), the console displays the last entry and waits. To proceed, the next data field address to be programmed must be entered manually (for example, press *05).

To review the contents of a data field, key # plus address (for example #05). The field's entries will be displayed, but no changes can be made.

5. In case of errors

If an address is improperly entered, the console will display FC . If a program entry is improperly entered (for example, a larger number than that which is permitted), the console display will go blank. In either case, simply re-enter the correct number.

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6. Enter Zone Descriptions and Installer's Message (5130XM/5137 only)

The 5130XM and 5137 consoles display English language descriptions of zones. An installer's message can be programmed to display when the system is "Ready" to arm (ex. "THE PETERSON'S READY TO ARM"). The zone descriptions are programmed by the installer using the built-in vocabulary of words (see PROGRAMMING ZONE DESCRIPTIONS paragraphs later in this section).

7. Exit Programming Mode

When all fields have been entered and checked, exit programming mode by pressing either *98 or *99. A second entry of *99 is required if the exit is being done from fields 1*00 and above. To prevent re-access to Programming mode using the Installer's code, use *98. The only way to re-access Programming mode is by depressing both the [*] and [#] keys at the same time within 30 seconds of power up. Exiting by using *99 always allows reentry into Programming mode using the Installer's code. Either way of exiting will allow access via downloading.

TABLE 6. SUMMARY OF PROGRAMMING COMMANDS

FUNCTION	COMMAND
ENTER PROGRAMMING MODE:	1. POWER UP, then depress [*] and [#] at the same time within 30 seconds of powering up. OR 2. Initially, Key: 4 + 1 + 4 + 0 for the 4140XM (or 4+1+3+0 for 4130XM; or 5+1+3+0 for 5130XM) plus CODE key + 0 + 0. OR 3. After Installer Code is programmed, key: Installer Code + CODE key + 0 + 0. Type 3 method of re-entry to the programming mode is inhibited if the programming mode is exited via *98. Type 1 method of entry can always be used, unless console programming has been locked out by the remote downloader.
ACCESS SECOND SET OF PROGRAMMING FIELDS	*94 (once already in the programming mode)
ACCESS FIRST SET OF PROGRAMMING FIELDS FROM SECOND SET	*99 (if already in second set of programming fields)
ADVANCE TO SPECIFIC FIELD:	[*] + ADDRESS (e.g., 01, 10, 21, etc.). Take
PROGRAM A FIELD:	[*] + ADDRESS, followed by data entries.
ERASE A FIELD'S CONTENTS:	[*] + ADDRESS + [*] (only applies to Addresses 31 thru 34, and 90).
READ CONTENTS OF A FIELD:	[#] + ADDRESS
EXIT PROGRAMMING MODE:	*99 (always allows re-entry to programming mode via Type 3 entry method above), unless console programming has been locked out by the remote downloader). A second entry of *99 is required if the exit is being done from fields 1*00 and above. *98 (inhibits re-entry to programming mode via Type 3 method). Must be preceded by an entry of *99 if the exit is being done from fields 100 and above. Note: When the programming mode is exited, a 1-minute set-up period must elapse before the system can properly function.
RESTORE STANDARD PRE-PROGRAMMED SETTINGS:	*97 (pre-programmed values are shown next to the programming boxes).

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COMMUNICATION DEFAULT FOR
STANDARD LOW SPEED 3+1/4+1 *94 (after entry into normal programming mode), then: *80

COMMUNICATION DEFAULT FOR
FOR EXPANDED 3+1/4+1 FORMAT *94 (after entry into normal programming mode), then: *81

COMMUNICATION DEFAULT FOR
ADEMCO HIGH SPEED (9 ZONES): *94 (after entry into normal programming mode), then *82

COMMUNICATION DEFAULT FOR
4+2 EXPANDED FORMAT (17 ZONES): *94 (after entry into normal programming mode), then: *83

ENTER ZONE DESCRIPTION AND INSTALLER
MESSAGE PROGRAMMING MODE: *93 (only relevant if 5130XM or 5137 Console is being used).

TABLE 7. INDEX TO PROGRAMMING FIELDS
(Letters refer to the sub-sections of section X: PROGRAMMING THE SYSTEM)

*00-section B	*26-section F	*52-section B	*78-section M	1*13-section C	1*39-section K
*01-section B	*27-section E	*53-section I	*79-section M	1*14-not used	1*40-not used
*02-section C	*28-section E	*54-section I	*80-section M	1*15-not used	1*41-not used
*03-section C	*29-section E	*55-section J	*81-section M	1*16-not used	1*42-section K
*04-section C	*30-section G	*56-section J	*82-section H	1*17-not used	1*43-section K
*05-section C	*31-section G	*57-section J	*83-section E	1*18-section C	1*44-section D
*06-section C	*32-section G	*58-section J	*84-section H	1*19-section C	1*45-section E
*07-section C	*33-section G	*59-section J	*85-not used	1*20-section C	1*46-section E
*08-section C	*34-section G	*60-section J	*86-section C	1*21-section C	1*47-section F
*09-section E	*35-section N	*61-section K	*87-section E	1*22-section C	1*48-section D
*10-section E	*36-section N	*62-section K	*88-section G	1*23-section C	1*49-section D
*11-section E	*37-section N	*63-section K	*89-not used	1*24-section C	1*50-section B
*12-section E	*38-section E	*64-section K	*90-section G	1*25-section C	
*13-section F	*39-section B	*65-section L	1*00-section B	1*26-section D	
*14-not used	*40-section H	*66-section L	1*01-section C	1*27-section D	
*15-section E	*41-section E	*67-section L	1*02-section C	1*28-section D	
*16-section F	*42-section G	*68-section L	1*03-section C	1*29-section D	
*17-section F	*43-section G	*69-section J	1*04-section C	1*30-section D	
*18-section F	*44-section N	*70-section J	1*05-section C	1*31-section D	
*19-section F	*45-section G	*71-section J	1*06-not used	1*32-section I	
*20-not used	*46-section I	*72-section M	1*07-not used	1*33-section G	
*21-section F	*47-section G	*73-section M	1*08-section C	1*34-section G	
*22-not used	*48-section I	*74-section M	1*09-section C	1*35-section K	
*23-section E	*49-section H	*75-section M	1*10-section C	1*36-section K	
*24-section E	*50-section I	*76-section M	1*11-section C	1*37-section K	
*25-section H	*51-section G	*77-section M	1*12-section C	1*38-section K	

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IMPORTANT!: Pre-programming of the desired communication format *must* be performed *before* programming any other fields. See step 3 of PROGRAMMING STEPS paragraph for instructions.

FACTORY DEFAULT VALUES ARE SHOWN NEXT TO THE BLANK PROGRAMMING FIELD BOXES.
(NOTE THAT FIELDS 14, 20, 22, 85, 89, 106, 107, 114, 115, 116, 117, 140 & 141 ARE NOT USED)
For a complete list of factory default settings, in numerical order, see SUMMARY OF CONNECTIONS section.

— B. SECURITY ACCESS CODES —

INSTALLER CODE ***00** [ ][ ][ ][ ]
(0-9)

4	1	4	0
4	1	3	0
5	1	3	0

COMMENTS: This 4-digit code is reserved for installation company use but can be used by the customer if needed. This is the only code that can be used to enter the Program mode from the console. This code cannot be used to enter secondary codes. This code is disabled if programming mode is exited by a *98.

MASTER SECURITY CODE ***01** [ ][ ][ ][ ] [1][2][3][4]
(0-9)

COMMENTS: Enter the 4 digit master security code. Use of a 9 in last position inhibits the Duress feature. This code can assign secondary codes 03-22.

OPEN/CLOSE REPORTING ENABLE BY USER CODE

***52** [ ][ ][ ][ ][ ][ ][ ][ ] [1][0][0][0][0][0][0][0]
User: 1 2 3 4 5 6 7 8

***39** [ ][ ][ ][ ][ ][ ][ ][ ] [0][0][0][0][0][0][0][0]
User: 9 10 11 12 13 14 15 16

1*00 [ ][ ][ ][ ][ ][ ] [0][0][0][0][0][0]
User: 17 18 19 20 21 22

COMMENTS: Enter 1 for each user code which is to send open/close reports to the central station. Note that user #7 must be enabled if either (a) open/close reporting is desired for keyswitch arming or (b) close reporting is desired for "Quick Arm" and "Power Up" arm, or (c) Open/Close reporting is desired for remote arm/disarm via downloading.

Note that user codes 16-22 are sent as user #15 for traditional communication formats. To receive all user codes, Ademco Contact ID reporting must be used.

BABYSITTER CODE ENABLE (User 22) **1*50** [ ] [0]
(0/1)

COMMENTS: Enter 1 if user 22 is to be prohibited from disarming the system unless the system was previously armed by user 22. Enter 0 if user 22 is to be permitted to arm and disarm the system, regardless of which user previously armed the system.

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— C. ZONE DEFINITIONS —

RESPONSE TYPES

The following is a list of the available response type assignments for each zone:

00 = Assign for unused zones
01 = ENTRY/EXIT (Delay #1), Burglary
02 = ENTRY/EXIT (Delay #2), Burglary
03 = PERIMETER, Burglary
04 = INTERIOR, FOLLOWER, Burglary
05 = TROUBLE BY DAY/ALARM BY NIGHT, Burglary
06 = 24-HOUR SILENT
07 = 24-HOUR AUDIBLE
08 = 24-HOUR AUXILIARY
09 = FIRE
10 = INTERIOR, DELAY, Burglary

COMMENTS: For response type entries, enter the 2-digit response type using the numerical codes listed at the beginning of this section. To designate a zone as a Right loop or an RF zone, enter a 1 in the appropriate location. Right loops refer to the use of the right loop on a 4190WH and 4196. RF zones refer to the use of wireless devices. If zones 1-9 are to be used as wired zones, or if a zone is used as a wired right loop zone, be careful not to select that zone for RF because it will then be ignored, as the wireless option will take precedence. If zone 7 is to be used for keyswitch Arm/Disarm operation, enter 10 as its response type.

ZONES 1-8 RESPONSE *02
SELECT RF 1*18

ZONE:	1	2	3	4	5	6	7	8

ZONES 9-16 RESPONSE *03
DESIGNATE RIGHT LOOP *06
SELECT RF 1*19

	9	10	11	12	13	14	15	16
	0							

ZONES 17-24 RESPONSE *04
DESIGNATE RIGHT LOOP *07
SELECT RF 1*20

	17	18	19	20	21	22	23	24

ZONES 25-27 RESPONSE *05
ZONES 28-32 RESPONSE 1*01
DESIGNATE RIGHT LOOP *08
SELECT RF 1*21

	25	26	27	28	29** (97)	30** (95)	31** (96)	32** (99)
				0				
	XXX	XXX	XXX					

**NOTE: Zones 29-32 do not apply to field *05. Instead, these locations represent Loop short and keypad panic response assignments 97 (short in wiring to expanders), 95, 96 & 99 (keypad panics) respectively. Zones 29-32 are available for fields 1*01, *08 & 1*21.

ZONES 33-40 RESPONSE 1*02
DESIGNATE RIGHT LOOP 1*10
SELECT RF 1*22

	33	34	35	36	37	38	39	40

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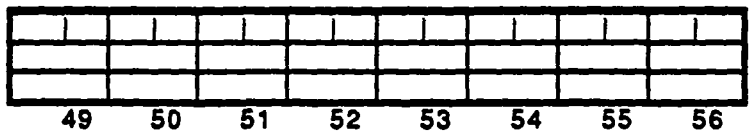
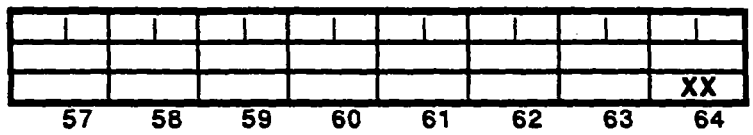
ZONES 41-48 RESPONSE **1*03**
DESIGNATE RIGHT LOOP **1*11**
SELECT RF **1*23**

ZONES 49-56 RESPONSE **1*04**
DESIGNATE RIGHT LOOP **1*12**
SELECT RF **1*24**



ZONES 57-64 RESPONSE **1*05**
DESIGNATE RIGHT LOOP **1*13**
SELECT RF **1*25**

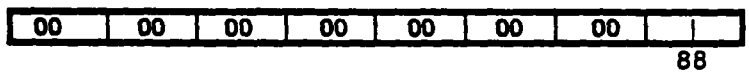


ZONE EXPANDER TYPE SELECTION ***86**
(0/1) (4208 Usage)

COMMENTS: Enter 1 if only one No. 4208 Eight Zone Expander is being used to expand the number of zones to 17. Enter 0 if more than one No. 4208 is installed, or other zone expansion is being used (see note below), or if no zone expansion is used.

NOTE: See 2-Wire Polling Loop Expansion section for proper configuration when more than one No. 4208 is used.

ASSIGN RESPONSE TYPE FOR **1*08**
4280 RECEIVER FAULTS
(00-10)



1*09

COMMENTS: Enter 2-digit response type. See 1*01 for types.

NOTE: Enter the response type (type 05 recommended) for 4280 transmitter supervision faults (no transmitter signals received within the check-in time, field 1*31) in fields *88 (for second 4280) and *90 (for first 4280).
Enter the response type (type 05 recommended) for 4280 polling loop failures or cover tamper faults (no response to control panel poll within check-in time, field 1*30) in fields *89 (for second 4280) and *91 (for first 4280).

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— D. RF OPTIONS —

FIRST 4280 RF EXPANDER SELECT (0/1) — **1*26** — [ ] — [0]

COMMENTS: Enter **1** if first 4280 is installed. Enter **0** if no 4280 is installed.

SECOND 4280 RF EXPANDER SELECT (0/1) — **1*27** — [ ] — [0]

COMMENTS: Enter **1** if 2nd 4280 is installed. Enter **0** if only one or no 4280 is installed.

IMPORTANT!: If second 4280 is installed, cut Blue jumper on 2nd 4280.

RF TRANSMITTER LOW BATTERY ANNUNCIATION ENABLE (0/1) — **1*28** — [ ] — [0]

COMMENTS: Enter **0** if audible beep and display annunciation upon RF transmitter low battery condition is desired only in disarmed state. Enter **1** if audible beep and display is desired in both armed and disarmed states.

RF TRANSMITTER LOW BATTERY REPORT ENABLE (0/1) — **1*29** — [ ] — [1]

COMMENTS: Enter **1** if a trouble message for RF transmitter low battery conditions is to be sent to the central station. Enter **0** if no report for transmitter low battery is desired. Note that a trouble message will be sent for a transmitter supervision failure independent of this selection.

4280 CHECK-IN INTERVAL (02-15 or 00 for no check-in) — **1*30** — [|] — [0 | 6]

COMMENTS: Enter the check-in monitoring interval in 2-hour increments; enter **02-15** (4-30 hours). Failure of a receiver to receive any RF signal within the time entered will result in activation of the response type programmed for zone 90 for the first 4280 (4280-8) and zone 88 for the second 4280 and their related communication reports.

NOTES: If a zero is programmed, supervision of the RF receiver will be disabled (response types for zones 88 and 90 are disabled).

RF TRANSMITTER CHECK-IN INTERVAL (02-15 or 00 for no check-in) — **1*31** — [|] — [1 | 2]

COMMENTS: Enter the check-in monitoring interval in 2-hour increments; enter **02-15** (4-30 hours). Failure of an individual transmitter to send a supervision signal within the time entered will result in a trouble response and related communication report.

NOTES: If a zero is programmed, this feature is disabled.

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WIRELESS KEYPAD TAMPER DETECTION ENABLE 1*44
(0/1)

[ ] [0]

COMMENTS: Enter **1** to enable tamper detection on wireless keypad. Enter **0** if tamper detection is not desired. If this feature is enabled, any attempt to tamper by means of many trial entries at a wireless keypad will be blocked by the control panel. If more than 40 key depresssions are received without a valid sequence (arm, disarm, etc.), the Control panel will disable the wireless keypad. The inhibit is removed once a valid key sequence is received from a wired keypad.

DISABLE WIRELESS KEYPAD 1*48
(0/1)

[ ] [0]

COMMENTS: Enter **1** if wireless keypad is not to be used (disable keypad). Enter **0** if wireless keypad is used.

DISABLE TROUBLE SOUNDER FOR RF SUPERVISION 1*49
(0/1)

[ ] [1]

COMMENTS: Enter **1** to disable trouble sounding for transmitter check-in failure; enter **0** if audible sounding is desired.

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— E. SYSTEM OPTIONS —

ENTRY DELAY #1 ***09**
(01-15 times 15 seconds or 00 for no delay) [|] [0 | 2]

COMMENTS: Enter the entry delay time (multiply entry by 15 seconds for actual delay time), up to a maximum delay of 225 seconds (entry 15 times 15 seconds), for the zone assigned to Entry Delay #1.

EXIT DELAY #1 ***10**
(01-15 times 15 seconds or 00 for no delay) [|] [0 | 3]

COMMENTS: Enter the exit delay time (multiply entry by 15 seconds for actual delay time), up to a maximum delay of 225 seconds, for the zone assigned to Exit Delay #1.

ENTRY DELAY #2 ***11**
(01-15 times 15 seconds or 00 for no delay) [|] [0 | 6]

COMMENTS: Enter the entry delay time (multiply entry by 15 seconds for actual delay time), up to a maximum delay of 225 seconds (entry 15 times 15 seconds), for the zone assigned to Entry Delay #2. *Note that this delay must be longer than Entry Delay #1.*

[|] [0 | 8]

EXIT DELAY #2 ***12**
(01-15 times 15 seconds or 00 for no delay)

COMMENTS: Enter the exit delay time (multiply entry by 15 seconds for actual delay time), up to a maximum delay of 225 seconds, for the zone assigned to Exit Delay #2. *Note that this delay must be longer than Exit Delay #1.*

ENTRY WARNING SOUND ***87** [ ] [1]
(0/1)

COMMENTS: Enter **0** for 3 short beeps, or **1** for slow beeps that continue for the entire entry delay period.

ENABLE CONSOLE ANNUNCIATION DURING EXIT DELAY **1*45** [ ] [0]
(0/1)

COMMENTS: Enter **1** if beeps from the consoles during exit delay is desired. Enter **0** for no console sound during exit delay.

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KEYSWITCH ARM/DISARM ENABLE ***15**
(0/1)

[ ] [0]

COMMENTS: Enter 1 for keyswitch enable; otherwise, enter 0. Requires the use of zone 7 wired loop (zone 7 no longer available as protection zone when used for keyswitch operation).

NOTE: Zone type 10 must have been entered for Zone 7 in field *02. Reports openings/closing by user #7 if reporting is enabled in field *52. If this field is enabled (enter 1), the fire and panic alarm voltage triggers automatically become ARMING and READY status outputs for support of the Keyswitch LEDs.

MULTIPLE ALARMS ***23**
(0/1)

[ ] [1]

COMMENTS: Enter 1 to enable the system to permit multiple audible alarms from a protection zone during one armed interval (as opposed to only one alarm). Enter 0 for only one alarm. Note that multiple alarm soundings will not occur more frequently than allowed by the alarm time-out). This selection has no impact on the number of communication messages transmitted.

DISABLE 4190WH TAMPER DETECTION IN EXPANSION ZONES 10-64 ***24**
(0/1)

[ ] [0]

COMMENTS: Only applicable if No. 4190WH RPMs are used to provide expansion zones. Enter 1 to disable tamper detection. Enter 0 to enable tamper detection (opening of the 4190WH case).

TEST INTERVAL ***27**
(0/1/2/3)

[ ] [2]

COMMENTS: Enter the test interval as follows: Enter 0 for no report, 1 for every 12 hours, 2 for every 24 hours or 3 for every 168 hours (1 week). Must be used in conjunction with data fields *83 and *68 (location 5). This field enables the automatic battery test. At the interval selected, AC power will be dropped and the battery will be tested under auxiliary current load for about 10 minutes. If a test report is desired, enter a test code in field *68, location 5..

TEST INITIATION TIME ***83**

(01-31)

[|] [1 | 2]

COMMENTS: Enter the time in hours from the time that the programming mode is exited that the first test report shall be transmitted, and/or first battery test initiated. **00** entry signifies immediately upon exiting. **01 - 31** represents the range in hours that can be selected. See field *68 for assigning the Test Report code.

POWER UP IN PREVIOUS STATE ***28**
(0/1)

[ ] [1]

COMMENTS: Enter 1 if it is desired that upon power-up (after a low-battery is sensed), the system will assume the system status prior to power down. Enter 0 if it is desired that the system will always power up in a disarmed state. When the system powers up armed, an alarm will occur 3 minutes after arming if a zone is faulted. When so armed, reports closing as User #7 if open/close reporting for User #7 was enabled in Address *52.

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QUICK ARM ***29**
(0/1)

[ ] [1]

COMMENTS: Enter 1 to enable arming of the burglary system in any mode by using the # key instead of the security code (just # key depression followed by the command AWAY, STAY, INSTANT or MAXIMUM). When armed AWAY or MAXIMUM, reports closing as User #7 if open/close reporting for User #7 was enabled in field *52. Enter 0 if Quick Arm is not desired. (The 4-digit code must be used to disarm.)

INHIBIT BYPASS OF ONE ZONE BETWEEN 1 AND 31 ***38**
(01-31)

[|] [0 | 0]

COMMENTS: Entering a zone number (01-31 only) prevents that zone from being bypassed by the user. Enter 00 if this feature is not desired. This selection does not affect fire zones, which can never be bypassed.

USE OF END-OF-LINE RESISTORS ON WIRED ZONES 2-8 ***41**
(0/1)

[ ] [1]

COMMENTS: Enter 0 if end-of-line resistors are to be used. Enter 1 if end-of-line resistors are not to be used (normally closed loops that detect only an open and do not require end-of-line resistors).

AUXILIARY OUTPUT FUNCTION SELECT **1*46**
(0/1/2)

[ ] [0]

COMMENTS: Enter 0 if ground start output is required; enter 1 if the auxiliary output will be used to produce an open/close trigger; enter 2 if the auxiliary output will be used to produce console-like sounding at an auxiliary sounder (ex. 706-12).

NOTE: Only one of the above options can be active within a system.

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— F. SOUNDER OPTIONS —

ALARM SOUNDER DURATION ***13** [ ][ ] [0][4]
(01-15 times 2 minutes)

COMMENTS: Enter the length of time an external sounder or the console's sounder will sound for all audible alarms (multiply entry 01-15 by 2 minutes for actual duration)

CONFIRMATION OF ARMING DING ENABLE ***16** [ ] [0]
(0/1)

COMMENTS: Enter 1 to enable half second external alarm sounding ("ding") at either the end of exit delay #1, if Open/Close reporting is not selected, or when kissoff is received from central station if Open/Close reporting is programmed. Enter 0 to disable the "ding".

AC POWER LOSS SOUNDING ***17** [ ] [0]
(0/1)

COMMENTS: Enter 1 if sounding at the console (rapid beeping) when AC power is lost is desired. Enter 0 if no AC power loss sounding is desired.

CONTROL ALARM SOUNDER DISABLE ***19** [ ] [0]
(0/1)

COMMENTS: Must be zero for 4140XM. For 4130XM/5130XM, enter 1 to disable internal alarm sounder. Does not apply to remote consoles.

DISABLE FIRE TIME-OUT ***21** [ ] [0]
(0/1)

COMMENTS: Enter 1 to disable (no timeout) the sounder time-out feature for any zone designated as a fire zone so that fire sounding continues until the system is reset

CONTROL ALARM SOUND SELECTION ***26** [0] [0]
(0/1)

COMMENTS: For 4130XM/5130XM, enter 1 for a sweeping sound at the Control upon alarm. Enter 0 for steady sound. This field does not apply to the 4140XM nor to the 4137/5137 consoles.

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— G. TELEPHONE OPTIONS —

TOUCHTONE OR ROTARY DIAL ***30** [ ] [1]
(0/1)

COMMENTS: Enter 1 for TouchTone dialing. Enter 0 for Rotary dialing.

IMPORTANT!: Do not select a dialing method that is not legally permitted by the telephone company for the particular subscriber. If selecting TouchTone, make sure the subscriber has requested and is paying for TouchTone service.

NOTE: Whether or not TouchTone dialing for call placement is permitted, communication by the use of DTMF signalling (Ademco High Speed) will still take place.

TELEPHONE ROTARY BACK-UP ENABLE **1*33** [ ] [0]
(0/1)

COMMENTS: Enter 1 to enable Rotary back-up if communicator is not successful on dialing using TouchTone DTMF on first attempt. Enter 0 if this option is not be to be used.

PABX ACCESS CODE ***31** [| | | | | | | |]

(up to four 2-digit entries)

COMMENTS: If not required, enter nothing and proceed to next address; otherwise, enter prefix needed to obtain an outside Telco line. This field may be used alternatively to enter a prefix that can suppress the Telco's call waiting feature from interfering with outgoing transmissions. This prefix is only useful if the Telco option to suppress call waiting has been obtained by your customer. The prefix to be used is 01010700 if rotary dialing is being used or 140700 if TouchTone dialing is being used.

Enter up to 4 digits. Each digit requires a 2-digit entry so as to allow entry of hexadecimal digits (B-F). Use the following chart to determine the entry for each digit. Only enter digits required. Do not fill unused spaces. Erase the field by entering *31*.

NUMBER	ENTER	NUMBER	ENTER
0	00	8	08
1	01	9	09
2	02	A	(DO NOT USE)
3	03	B	11
4	04	C	12
5	05	D	13
6	06	E or [*]	14
7	07	F or [#]	15

PRIMARY SUBSCRIBER ACCOUNT NUMBER ***32** [| | | | | | | |]
(three or four 2-digit entries)

COMMENTS: Enter 3 or 4 digits. Each digit requires a 2-digit entry so as to allow entry of hexadecimal digits (B-F). If a 3 digit number is to be used, only enter data in the first 6 locations, leaving the last two unfilled.

Use the chart in field *31 to determine the entry for each digit. Erase the field by entering *32*.

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SECONDARY SUBSCRIBER ACCOUNT NUMBER *90
(three or four 2-digit entries)

COMMENTS: Enter 3 or 4 digits. Each digit requires a 2-digit entry so as to allow entry of hexadecimal digits (B-F). If a 3-digit number is to be used, only enter data in the first 6 locations, leaving the last two unfilled. Use the chart in field *31 to determine the entry for each digit. Erase the field by entering *90*.

NOTE: This field *must* be programmed if a secondary phone number is used (field *34). This account number can be the same as the primary account number.

PRIMARY PHONE NUMBER *33

(0-9)

COMMENTS: Enter up to 12 digits, 0-9. Do not fill unused spaces. Erase the field by entering *33*

NOTE: Back-up reporting (8 calls are made to the secondary phone number if no acknowledgment is received after 8 attempts to the primary number) is automatic only if there is a secondary phone number entered.

SECONDARY PHONE No. *34

(0-9)

COMMENTS: Enter up to 12 digits, 0-9. Do not fill unused spaces. Erase the field by entering *34*. If this field is programmed, a secondary subscriber account number (field *90) *must* also be programmed (can be the same as the primary account number).

DUAL REPORTING *51 [ ] 0

(0/1)

COMMENTS: Enter 1 if it is desired that all reports are sent to both primary and secondary phone numbers. If dual reporting is desired and Ademco High Speed format is to be used at all, it must be selected as both the primary and secondary transmission formats.

NOTE: Dual reporting cannot be used if Split reporting is selected in field 1*34.

COMMUNICATOR SPLIT REPORT SELECTION 1*34 [ ] 0
(0/1/2)

COMMENTS: Enter 0, 1, or 2, in accordance with the following:
0 = split reporting disabled; 1 = alarm, alarm restore & cancel reports sent to primary Telco number, all others to secondary Telco number; 2 = open/close & test reports sent to secondary Telco number and all other reports to primary.

DIAL TONE PAUSE *42 [ ] 0

(0/1/2)

COMMENTS: Enter the desired wait time for dial tone detection as follows: Enter single digit, 0 = 5 seconds; 1 = 11 seconds; or 2 = 30 seconds.

DIAL TONE DETECTION *43 [ ] 1

(0/1)

COMMENTS: Enter 1 if true dial tone detection is desired. Enter 0 if only a delay before dialing (same as programmed in field *42) is desired. The latter may be necessary in high-noise environment Telco networks where noise can be confused with dial tone, resulting in premature dialing.

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PRIMARY ACK WAIT ***45** [ ] [0]

(0/1)

COMMENTS: Enter 0 if 30 second central station receiver acknowledge wait time for primary phone number is desired. Enter 1 for 60 second acknowledge wait time. For UL installation, select 30 seconds.

SECONDARY ACK WAIT ***47** [ ] [0]

(0/1)

COMMENTS: Enter 0 if 30 second central station receiver acknowledge wait time for secondary phone number is desired. Enter 1 for 60 second acknowledge wait time. For UL installations, select 30 seconds.

BURGLARY ALARM COMMUNICATION DELAY ***88** [ ] [0]

(0/1)

COMMENTS: Enter 0 for no delay on burglary alarm communication, or 1 for 16-second delay (no delay on 24-hour reports).

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— H. REPORTING OPTIONS —

PROGRAMMING/ DOWNLOAD TAMPER CODE ***40**
(01-15 or 00 for no report)

[|] [0 | 0]

COMMENTS: Enter the reporting code (1-9, 0, B-F) to be sent for attempts to change the programming of the system either by downloading or on-site. Enter code as two-digit entry. To disable this feature, enter **00**.

NOTE: If 4+2 expanded reporting is being used, the second digit is the second digit of the power up code (*81).

ALARM COUNT (SWINGER SUPPRESSION) ***82**
(00-15)

[|] [0 | 3]

COMMENTS: Enter **00-15**. This option limits the number of messages (Alarms or Troubles) sent for a specific channel in an armed period (Swinger Suppression) before additional reports from that channel are inhibited. This selection is system-wide.
NOTE: If zero is selected, all Alarm or Trouble codes are reported. For UL installations, select "00".

SINGLE MESSAGE TRANSMISSION WITH CHECKSUM VERIFICATION ***49**
(0/1)

[ ] [0]

COMMENTS: Enter **1** to send a verification digit to validate the message at the receiver without having to send two message rounds.
NOTE: Selection applies to both primary and secondary phone numbers, and is valid for 3+1, 4+2, and Ademco High Speed reports.

800/WATS LINES USAGE (HIGH SPEED KISSOFF DELAY) ***84**
(0/1)

[ ] [0]

COMMENTS: Enter **1** if Ademco High Speed, 4+2 Express or Contact ID reporting will be transmitted on 800/WATS lines, where satellite links may cause a delay before kissoff. Enter **0** if other formats are being used, or if local telco lines are being used.

DISABLE DURESS REPORTING IN ADEMCO HIGH SPEED FORMAT ***25**
(0/1)

[ ] [0]

COMMENTS: Only applicable if Ademco High Speed Format is being used. Enter **1** to disable duress reporting or **0** to enable duress reporting.

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— I. SELECT REPORTING FORMAT —

PRIMARY *46 [ ] [0]
&
SECONDARY *48 [ ] [0]
TRANSMISSION FORMATS
(0/1/2)

COMMENTS: Enter selection of Ademco Low Speed format, SESCOA/Radionics, or Ademco High Speed format as follows: 0 = Ademco Low Speed, 1 = SESCOA/Radionics, or 2 = Ademco High Speed for up to 15 (all 64 if non-unique reporting is acceptable) zones and 4+2 DTMF for up to 27 zones.

NOTE: If Ademco High Speed reporting is selected, the Non-Alarm reports desired must be selected in Addresses *40, and *61 thru *68 by entering any non-zero code for the desired reports.

SESCOA (0-9)/ *50 [ ] [0]
RADIONICS (0-9, Hex B-F)
(0/1)

COMMENTS: Enter 0 if Radionics format is to be used with hexadecimal 0-9, B-F reporting. Enter 1 if SESCOA format is to be used with only numeric reporting (0-9).

NOTE: Selection applies to both primary and secondary phone numbers.

4+2 REPORTING BY ZONE *53 [ ] [0]
(maximum of 27 zones uniquely reported)
(0/1)

COMMENTS: Enter 1 if 4+2 reporting by zone for a zone expanded system is desired, otherwise enter 0. If this reporting format is selected, skip fields *55-*71 and continue programming at field *72.

NOTE: 4+2 reporting will only send unique reports for zones up to 27. Zones higher than 27 will not be reported.

IMPORTANT!: If Ademco High Speed format had been selected in Addresses *46 or *48 and this field's selection is made, a high speed 4+2 transmission using DTMF/TouchTone communication can be obtained which is compatible with Ademco No. 685 Digital Receivers using Level 4.3 software or higher.

4+2 BY CHANNEL *54 [ ] [0]
REPORTING
(maximum of 15 channels)
(0/1)

COMMENTS: Enter 1 if 4+2 reporting is desired,enter 0 if 3+1/4+1 or Ademco High Speed reporting is to be used. This selection is overridden by the selection of 4+2 reporting in field *53. If the 4+2 format of field *54 is selected, Fields *55-*71 should be programmed, but fields *72 through *81 should be skipped.

ADEMCO CONTACT 1*32 [ ] [0]
REPORTING ENABLE

COMMENTS: Enter 1 to enable Ademco Contact Reporting; enter 0 to disable.

NOTE: All 64 zones and 22 users can be reported to Ademco's 685 Receiver with level 4.4 or higher software.

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— J. 3+1/4+1 STANDARD or EXPANDED REPORT SELECTION —

ALARM REPORT ***55** ☐ [0]

(0/1)

COMMENTS: Enter **0** for standard report (code only), or **1** for expanded report (code followed by channel).

RESTORE REPORT ***56** ☐ [1]

(0/1)

COMMENTS: Enter **0** (Standard Report) or **1** (Expanded Report). When a zone of protection alarm, bypass, or trouble report is transmitted, a restore report for any of those conditions is not issued unless all like conditions within a channel are restored. When Expanded is selected, the channel number is transmitted in the last position of the second transmission line (for Low Battery and AC Loss, the 2nd digit of these code reports is transmitted). Restore reports for each zone type alarm are individually selectable (see fields *69 through *71).

NOTE: Selection applies to both primary and secondary phone numbers.

BYPASS REPORT ***57** ☐ [0]

(0/1)

COMMENTS: Enter **0** (Standard Report) or **1** (Expanded Report). Bypassing a zone results in a bypass report and in a restore report when all bypasses are removed. Fire zones and the non-bypassable zone (field *38) cannot be bypassed. When Expanded is selected, the channel is transmitted in the last position of the second transmission line. Zone ID is not transmitted.

NOTE: Selection applies to both primary and secondary phone numbers.

TROUBLE REPORT ***58** ☐ [0]

(0/1)

COMMENTS: Enter **0** (Standard Report) or **1** (Expanded Report). When Expanded is selected, the channel is transmitted in the last position of the 2nd transmission line. Zone ID is not transmitted.

NOTE: Selection applies to both primary and secondary phone numbers.

OPEN/CLOSE REPORT ***59** ☐ [0]

(0/1)

COMMENTS: Enter **0** (Standard Report) or **1** (Expanded Report). When Expanded is selected, user ID (0-9, B-F) is transmitted in the last position of the 2nd transmission line. For users 15-22, code "F" is transmitted in Expanded format. Open/Close reporting is selectable by user number (see fields *52, *39 & (1)*00, in the ACCESS CODES section).

NOTE: Selection applies to both primary and secondary phone numbers.

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LOW BATTERY, AC LOSS AND TEST REPORT *60
(0/1)

[ ] [0]

COMMENTS: Enter 0 (Standard Report) or 1 (Expanded Report). When Expanded is selected, an additional programmable code is transmitted in the last position of the second transmission line (except for Test which has an automatic 0 as the second digit).

NOTE: Selection applies to both primary and secondary phone numbers.

ZONE TYPES RESTORE REPORT ENABLE *69
(0/1)

TYPE: 1 2 3 4 [1][1][1][1]

*70 TYPE: 5 6 7 8 [1][0][0][0]

*71 TYPE: 9 10 [1][1]

COMMENTS: Enables Restore reporting for individual zone types. Enter 1 to select restore reporting for the zone type; enter 0 to inhibit restore reports.

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— K. ZONE CHANNEL ASSIGNMENTS —

CHANNEL ASSIGNMENTS FOR ZONES 1-8 *61

ZONE: 1 2 3 4 5 6 7 8

FOR ZONES 9-16 *62

ZONE: 9 10 11 12 13 14 15 16

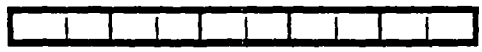
FOR ZONES 17-24 *63

ZONE: 17 18 19 20 21 22 23 24

FOR ZONES 25-27 & DURESS & KEYPAD PANICS *64

ZONE: 25 26 27 DURESS SHORT 1 & * 3 & # * & #

FOR ZONES 28-32 1*35



ZONE: 28 29 30 31 32

FOR ZONES 33-40 1*36

ZONE: 33 34 35 36 37 38 39 40

FOR ZONES 41-48 1*37

ZONE: 41 42 43 44 45 46 47 48

FOR ZONES 49-56 1*38

ZONE: 49 50 51 52 53 54 55 56

FOR ZONES 57-64 1*39

ZONE: 57 58 59 60 61 62 63 64

4280 RECEIVER FAULTS 1*42

2nd 4280 Supv. Fault 88

4280 RECEIVER FAULTS (cont.) 1*43

2nd 4280 no TX Check-in 89	1st 4280 Supv. Fault 90	1st 4280 no TX Check-in 91

COMMENTS: Enter all channel IDs as double digits (00-15). Disable = **00** (no channel reporting).

NOTE: Non-zero codes must be entered when traditional Ademco High Speed or Contact ID reporting format is used.

When Contact ID reporting is used, the zone to channel assignments should be distributed among channels 1-15 to prevent the swinger suppression feature (field *82) from falsely shutting down reports due to many different events occurring on the same channel.

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— L. REPORT CODES —
(3+1/4+1, 4+2 STANDARD, ADEMCO HIGH SPEED & CONTACT ID FORMATS)

ALARM REPORT CODES FOR EACH CHANNEL
CHANNELS 1-8 *65

CHANNEL: 1 2 3 4 5 6 7 8

CHANNELS 9-15 *66

CHANNEL: 9 10 11 12 13 14 15

NON-ALARM CODES *67

AC LOSS | AC LOSS 2nd DIGIT | TROUBLE | TROUBLE RESTORE | BYPASS | BYPASS RESTORE | RESTORE CODE FOR ALARM, AC LOSS, LOW BAT

NON-ALARM CODES (cont.) *68

OPEN | CLOSE | LOW BATTERY | LOW BATTERY 2 nd DIGIT | TEST | POWER UP | CANCEL CODE

COMMENTS: Enter all reporting codes as double digits. Disable = 00 (no code reporting)

NOTE: Non-zero codes must be entered when traditional Ademco High Speed or contact reporting format is used.

01 = 1	04 = 4	07 = 7	10 = 0	13 = D
02 = 2	05 = 5	08 = 8	11 = B	14 = E
03 = 3	05 = 6	09 = 9	12 = C	15 = F

For AC LOSS and LOW BATTERY, you *must* enter a non-zero code as the second digit, regardless of the reporting format selected (e.g. Ademco High Speed, 3+1/4+1, etc.).

When 4+2 by zone (field *54) format is used, the 2nd digit of the Power Up and Cancel codes is always "0".

After a power up reset, or after exiting the Program mode, the Power Up code will be sent.

If the system is shut down by using a security code while a burglary alarm is sounding, the Cancel code will be sent. (Not sent for 24-hour zones.) A Cancel in traditional Ademco High Speed format is identical to an Opening Report for user 15 and should not be used together.

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— M. 4+2 EXPANDED FORMAT EVENT/ID CODES —

ZONES 1-8 EVENT CODE *72
(1st digit of reporting code)

ZONES 1-8 ID CODE *76
(2nd digit of reporting code)

ZONES 9-16 EVENT CODE *73
(1st digit of reporting code)

ZONES 9-16 ID CODE *77
(2nd digit of reporting code)

ZONES 17-24 EVENT CODE *74
(1st digit of reporting code)

ZONES 17-24 ID CODE *78
(2nd digit of reporting code)

ZONES 25-27 DURESS, SHORT & PANICS EVENT CODE *75

(1st digit of reporting code)

ZONES 25-27 DURESS, SHORT & PANICS ID CODE *79

(2nd digit of reporting code)

NON-ALARM CODES *80

***81**

COMMENTS:.Enter all reporting codes as double digits. Disable = 00 (no code reporting) if both 1st and 2nd digits are so programmed.

First digit of Close Report must be C (hex 12), and first digit of Open Report must be B (hex 11), if English printout of open/close is desired on Ademco 685 Receiver or if opening/closing by user is to be processed on an Ademco Automation System.

The second digit of both the Close and Open Reports represents the user ID for the Installation Company Security Code. User No. 2 is automatically assigned an ID one higher than this code (e.g. if 01 is keyed, User 2 reports as 2, User 3 as 3, etc.)

Power Up is transmitted after a power reset or after exiting the Program Mode. Cancel is transmitted if system is shut down while a burglary alarm is sounding.

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— N. DOWNLOADING OPTIONS —

CENTRAL STATION DOWNLOAD PHONE # ***35**

(0-9)

COMMENTS: Only applicable if downloading will be utilized. Enter up to 12 digits (0-9). Do not fill unused spaces. Erase the field by entering *35*.

CENTRAL STATION ID NUMBER ***36**

(0-9/A-F)

COMMENTS: Only applicable if downloading will be utilized. Make entries as 2-digit numbers as follows:

00=0	04=4	08=8	12=C
01=1	05=5	09=9	13=D
02=2	06=6	10=A	14=E
03=3	07=7	11=B	15=F

DOWNLOAD COMMAND ENABLES ***37**

(0/1)

	DIALER SHUTDOWN	1
	SYSTEM SHUTDOWN	1
1	NOT USED	1
	REMOTE BYPASS	1
	REMOTE DISARM	1
	REMOTE ARM	1
	UPLOAD PROGRAM	1
	DOWNLOAD PROGRAM	1

COMMENTS: Each of the various remote (from the central station) functions can either be enabled or disabled. Disabling a function means that the central station will not be able to perform that function with respect to this system. Enter 1 to enable a function, and 0 to disable a function. For UL installations, all entries must be 0.

RING DETECTION COUNT FOR DOWNLOADING ***44**

(01-14 or 15 for answering machine)

0 | 0

COMMENTS: Only applicable if central station intitiated downloading will be used. Enter **00** to disable ring detection. Enter **01-14** for ring counts of 1-14. Enter **15** to select mode that gets around telephone answering machines connected to the same phone line. In the latter mode, the system upon hearing one ring followed by nothing, will not answer but will ready itself to pick up the next incoming call received within the next 30 seconds on the first ring (the downloader calling again).

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— 0. PROGRAMMING ZONE DESCRIPTIONS — (5130XM & 5137 CONSOLES ONLY)

INTRODUCTION

A user friendly English language description/location of protection zones, keypad panics, polling loop short and the first 4280 supervision faults can be programmed into the system (up to 59 descriptions). Each description can be composed of a combination of words (up to a maximum of 3) that are selected from a vocabulary of approximately 220 words stored in memory (a complete list of all words in this vocabulary is provided at the end of this section. In addition, up to 5 installer-defined words can be added to those already in memory. Thus, when an alarm or trouble occurs in a zone, an appropriate description for the location of that zone will be displayed at the console. In addition, an installer's message can be programmed which will be displayed when the system is "Ready" (ex. THE PETERSON's).

ENTERING ZONE DESCRIPTIONS

1. Enter programming mode as described previously.
2. Key *93. The following will be displayed: * ZN ??

   When in this mode, the console keys perform the following functions:

   [3] Scrolls both alphabet and actual words in ascending alphabetical order.

   [1] Scrolls both alphabet and actual words in descending alphabetical order.

   [6] Toggles between alphabet and actual word list.

   [8] Saves the zone description in the system's memory.

   [#] # plus zone number will display the description for that zone.
3. Key *01 to begin entering the description for zone 1, (key *02 for zone 2, *03 for zone 3 etc.). The following will be displayed: * ZN 01 A

   Note that the first letter of the alphabet appears after the zone number, and that the zone number is automatically included with the proposed description.
4. Select the first letter of the desired description (note that "A" is already displayed). Use key [3] to advance through the alphabet and key [1] to go backward. For example, assume the desired description for zone 1 is BACK DOOR. Press key [3] repeatedly (or hold down the key) until "B" appears, then press key [6]. to display the first available word beginning with B. Repeatedly press key [3] to advance through the available words until the word BACK is displayed. Press key [1] to move backward through the word list.
5. For selection of the second word (DOOR), press key [6]. "A" will now be displayed again after the first word selected . Press key [3] until the desired first letter of the second word appears (in this example, "D"). Then press key [6] to display the first available word beginning with "D". Press key [3] repeatedly until the desired word (DOOR) appears.
6. If you wish to add a third word (provided there is sufficient space for it in the display), repeat step 5 for that word.
7. When all desired words have been entered, press key [8] to store the description in memory.
8. To review the zone descriptions, key [#] plus zone number

   (e.g., #01). To edit zone descriptions, key [*] plus zone number (e.g., *01)
9. To exit the zone description mode, key *99.

NOTE: Alpha descriptor entry can be accomplished locally at the 5137 console or remotely using a 4130PC Downloader.

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ADDING CUSTOM WORDS

Up to 5 installer-defined words can be added to the built-in vocabulary. Each of the 5 "words" can actually consist of several words, but bear in mind that a maximum of 10 characters can be used for each word string. To create the custom word or word string, proceed as follows:

1. Enter the programming mode.
2. Key *93. The following will be displayed: * ZN ??
3. Now key 00 to get into the mode which will allow the custom words to be created. The following will be displayed: * ED ?

   When in this mode, the keys perform the following functions:

   [3] Advances through alphabet in ascending order.

   [1] Advances through alphabet in descending order.

   [6] Selects the desired letter, and moves the cursor to the right one space.

   [4] Moves the cursor one space to the left.

   [7] Inserts a space at the cursor location, erasing any character at that location.

   [8] Saves the new word in the system's memory.

   [*] Returns to description entry mode.
4. Key the number of the custom word or word string to be created (0-4). For example, if you are creating the first word (or word string), enter 0; when creating the second word, enter 1, and so on. A cursor will now appear at the beginning of the second line.
5. Use the [3] key to advance through the alphabet (numbers, symbols and special characters are included). Use the [1] key to move back through the alphabet.

   IMPORTANT: Custom words must begin with an alphabetic character. If numbers or symbols are used as the first character, the word will not be saved.
6. When you have reached the desired character, press the [6] key to select it. The cursor will then move to the right, in position for the next character.
7. Repeat steps 5 and 6 to create the desired word (or words). Note that the [4] key can be used to move the cursor to the left if neccessary, and that key [7] can be used to enter a blank (or to erase an existing character). Each word or word string cannot exceed 10 characters.
8. Press the [8] key to save the custom word(s) and return to the * ED ? display. The custom word (or string of words) will be automatically added to the built-in vocabulary at the end of the group of words beginning with the same letter.
9. Repeat steps 4 through 8 to create up to 4 additional custom words (or word strings).
10. Press the [*] key to return to the *ZN ?? display, and follow the zone description entry procedure to assign the new words to a zone description.
11. Key *99 to exit the zone description programming mode.

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CREATING A CUSTOM MESSAGE DISPLAY (INSTALLER'S MESSAGE)

Normally, when the system is in the disarmed state, the following display is present on the Console.
"****DISARMED**** READY TO ARM

Part or all of the above message can be modified to create a custom installer message. For example, "****DISARMED**** on the first line or READY TO ARM on the second line could be replaced by the installation company name or phone number for service. Note that there are only 16 character spaces on each of the two lines. To create a custom display message, proceed as follows:

1. Enter the programming mode.
2. Key *93. The following will be displayed: * ZN ??
3. Key 00. The following will appear: * ED ?
4. Press the [5] key. The following will appear:

   ****DISARMED****

   READY TO ARM

   A cursor will be present at the extreme left of the first line (over the first "star"). The [6] key is used to move the cursor to the right and the [4] key to move the cursor to the left. Key [7] may be used to to insert spaces or erase existing characters.
5. For example, to replace READY TO ARM with the message SERVICE:424-0177, proceed as follows:

   Press the [6] key to move the cursor to the right, and continue until the cursor is positioned over the first location on the second line.

   Press the [3] key to advance through the alphabet to the first desired character (in this case, "S"). Use the [1] key to go backward, when neccessary. When the desired character is reached, press [6]. The cursor will then move to the next position, ready for entry of the next character (in this example, "E"). When the cursor reaches a position over an existing character, pressing the [3] or [1] key will advance or back up from that character in the alphabet. Proceed in this manner until all characters in the message have been entered.
6. To store this new display message in memory, press the [8] key.
7. Press the [*] key to return to the * ZN ?? display. To confirm that the new message has been stored in memory, press 00 and then press key [5]. The new message should be displayed.
8. Key *99 to exit the descriptor/programming mode.

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TABLE 8. VOCABULARY OF WORDS STORED IN MEMORY*
(5130XM or 4140XM with 5137 CONSOLE ONLY)

AIR
ALARM
ALCOVE
ALLEY
AMBUSH
AREA
APARTMENT
ART
ATTIC
AUDIO
AUXILIARY

BABY
BACK
BAR
BARN
BASEMENT
BATHROOM
BED
BEDROOM
BELL
BLOWER
BOILER
BOTTOM
BOX
BREAK
BUILDING
BURNER

CABINET
CALL
CAMERA
CAR
CASE
CASH
CCTV
CEILING
CELLAR
CENTRAL
CIRCUIT
CLIP
CLOSED
COIN
COLD
COATROOM
COLLECTION
COMBUSTION
COMPUTER
CONTACT

DAUGHTERS
DELAYED
DEN
DESK
DETECTOR
DINING
DISCRIMINATOR
DISPLAY
DOCK
DOOR
DORMER
DOWN
DOWNSTAIRS
DRAWER
DRIVEWAY
DRUG
DUCT

EAST
ELECTRIC
EMERGENCY
ENTRY
EQUIPMENT
EXECUTIVE
EXIT
EXTERIOR

FACTORY
FAILURE
FAMILY
FATHERS
FENCE
FILE
FIRE
FLOOR
FLOW
FOIL
FOYER
FREEZER
FRONT
FUR
FURNACE

GALLERY
GARAGE
GAS
GATE
GLASS
GUEST
GUN

HALL
HEAT
HIGH
HOLDUP
HOUSE

INFRARED
INSIDE
INTERIOR
INTRUSION

JEWELRY

KITCHEN

LAUNDRY
LEFT
LEVEL
LIBRARY
LIGHT
LINE
LIQUOR
LIVING
LOADING
LOCK
LOOP
LOW
LOWER

MACHINE
MAGNETIC
MAIDS
MAIN
MASTER
MAT
MEDICAL
MEDICINE
MICROWAVE
MONEY
MONITOR
MOTHERS
MOTION
MOTOR
MUD

NORTH
NURSERY

OFFICE
OIL
OPEN
OPENING
OUTSIDE
OVERFLOW
OVERHEAD

PAINTING
PANIC
PASSIVE
PATIO
PERIMETER
PHONE
PHOTO
POINT
POLICE
POOL
POWER

QUAD

RADIO
REAR
RECREATION
REFRIG
REFRIGERATION
RF
RIGHT
ROOM
ROOF

SAFE
SCREEN
SENSOR
SERVICE
SHED
SHOCK
SHOP
SHORT
SHOW
SIDE
SKYLIGHT
SLIDING
SMOKE
SONIC
SONS
SOUTH
SPRINKLER
STAMP
STATION
STEREO
STORE
STORAGE
STORY
STRESS
STRIKE
SUMP
SUPERVISED
SUPERVISION
SWIMMING
SWITCH

TAMPER
TAPE
TELCOPHONE
TELLER
TEMPERATURE
THERMOSTAT
TOOL
TRANSMITTER
TRAP

ULTRA
UP
UPPER
UPSTAIRS
UTILITY

VALVE
VAULT
VIBRATION
VOLTAGE

WALL
WAREHOUSE
WASH
WEST
WINDOW
WINE
WING
WIRELESS
WORK

XMITTER

YARD

ZONE

0
1ST
2ND
3RD
4TH
5TH
6TH
7TH
8TH
9TH

***Note:** *This factory-provided vocabulary of words is subject to change.*

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SECTION XI
DOWNLOADING

WHAT IS DOWNLOADING?

Downloading allows the installer or central station operator to remotely access, program, and control the security system over normal telephone lines. Anything that can be done directly from the keypad can be done remotely, using DOWNLOADING.

WHAT IS NEEDED TO DOWNLOAD?

1. An IBM PC, or compatible computer.
2. MS DOS 3.1 or higher, in order to run the DOWNLOADING program. MS DOS stands for: MicroSoft Disk Operating System.
3. A HAYES 1200 SMARTMODEM (external: level 1.2 or higher; internal: level 1.1 or higher). If these levels cannot be found locally, an external modem can be purchased from ADEMCO, or contact HAYES for a free update. *Other brands are not compatible, even if claimed to be 100% compatible.*
4. 4130PC DOWNLOADING software, from ADEMCO. This software is available in both 3-1/2" (4130P3-3) and 5-1/4" diskettes, and includes a complete User's Manual.

HOW DOES DOWNLOADING WORK?

At the protected premises, the VISTA XM Control panel must be connected to the existing telephone line via the 4171XT-XM dialer board (refer to the PHONE LINE CONNECTIONS section).

Assuming a new installation, the installer must do 3 things:

(1) Enter the programming mode and load the factory defaults by pressing *97. This loads specific information needed to complete a successful first communication.

(2) Program a phone number to which the computer and modem are attached (*35). This number is known as the "CALL-BACK NUMBER".

(3) Program the number of rings at which the VISTA XM is to "answer" (*44). This is known as the "RING COUNT".

The panel is now ready for its first communication.

In order to remotely access, control, or program the alarm panel, a "link" must be established between the computer and the control panel, as follows:

1. The computer calls up the Control panel. (The phone number for each customer is entered into the customer's account file on the computer).
2. The Control panel "answers" at the pre-programmed ring count and executes a handshake with the computer.
3. The computer sends a request for call-back to the Control panel.
4. The panel acknowledges the request and hangs up. During the next few seconds, the Control panel will process the request making sure certain encrypted information, received from the computer, matches its own memory.
5. Upon a successful match, the Control panel will seize the phone line and call the computer back.
6. The computer answers, usually by the second ring, and executes a handshake with the panel.
7. The panel then sends other default information to the computer. If this information matches the computer's information, a successful link is established. This is known as being "ON-LINE".

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WHAT CAN BE DONE ONCE THE PANEL IS "ON-LINE"?

- Arm the System in the Away Mode
- Disarm the System
- Bypass a Zone
- Force the System to Accept a New Program Download
- Shut Down Communication (dialer) Functions (non-payment of monitoring fees in an owned system)
- Shut Down all Security System Functions (non-payment for a leased system)
- Inhibit Local Keypad Programming (prevents takeover of your accounts)
- Leave a message for customer (5130XM/5137 ONLY)
- Command the System to Upload a Copy of its Resident Program to the office
- Read Arming Status
- Read AC Power Status
- Read List of Faulted Zones
- Read List of Bypassed Zones
- Read 10-Day Alarm History Log
- Read 10-Day Trouble History Log
- Read List of Zones Currently in Alarm
- Read List of Zones Currently in Trouble
- Read List of RF sensors with low battery conditions

HOW SECURE IS DOWNLOADING?

Accessing the Control panel from a remote location is protected against compromise by the use of 4 levels of security protection:

1. **Security Code Handshake:** The subscriber's account number as well as an 8-digit central station ID number (CSID) (known only to the office) must be matched between the Control and computer.
2. **Hang-Up and Call-Back:** The Control panel will "hang-up" and call the computer back at the pre-programmed number only if the security codes match, as explained above.
3. **Data Encryption:** All data that is exchanged between the computer and Control panel is encrypted to reduce the possibility of anyone "tapping" the line and corrupting the data.
4. **Operator Access Levels:** Up to 15 operators can have access to the DOWNLOADER, each having their own log-on code. However, each operator can be assigned one of three levels of access in both FILE and COMMAND functions, as follows:

   FILE ACCESS:

   Read Only: able only to look at the database; cannot change any information, and cannot see the customer's access codes.

   Part Read/Write: able to look at and change all information. except the customer's access codes.

   Full Read/Write: able to look at and change any and all information in the database.

   CONTROL/COMM ACCESS:

   Read Only: able only to Upload and arm the system. Not able to DISARM, BYPASS, or change any programmed information.

   Part Read/Write: able to ARM, BYPASS, UPLOAD, DOWNLOAD but cannot shutdown the system.

   Full Read/Write: able to perform all control and status commands, as well as shutdown all or part of the system.

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GLASSBREAK SENSORS

2500.....DUAL TECH GLASSGUARD - UL

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NOTES:

1. Each time the Control panel is accessed (whether successful or unsuccessful), a PROGRAM TAMPER report (*40) is sent to central station.
2. When downloading, the console will display "MODEM COMM" (5130XM/5137) or "CC" (4130XM/4137)
3. Whenever a download or a save is done, an automatic time stamp is done, indicating the date and time of the last download (or save) and the operator ID number.
4. The average time for a complete download, including initial call-up, hang-up and call-back is under 4 minutes.
5. A complete hard copy of each individual account can be obtained by connecting a printer to the computer. Refer to your computer owner's manual or contact your dealer for printer recommendations.

ADVISORIES:

1. Alarm and trouble responses and reports are disabled during on-line time. Should an event occur during this time, the response will take place and the report will go through as soon as the remote access sequence is completed. Alarm and trouble conditions are not ignored, they are simply delayed.
2. The keypads are inactive during downloading communication, and resume normal functions after hang up. All keypad entries are ignored during on-line time.

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SECTION XII
TESTING THE SYSTEM

USING TEST MODE

After the installation is completed, the Security System should be thoroughly tested as follows:

1. With the System in the disarmed state, check that all zones are intact. If DISARMED - Press [*] to show faults (5137) or NOT READY (4137) is displayed, press the [*] key to display the descriptors of the faulted zone(s). Restore faulted zone(s) if necessary, so that ****DISARMED*** READY TO ARM (5137) or READY (4137) is displayed.
2. Enter the security code and press the TEST key. The external sounder (if used) should sound for 3 seconds and then turn off (the system is operating on the back-up battery only at this time).

   NOTE 1. The system will not enter the Test mode if the battery voltage is too low, if the battery is not connected, or if any communication messages are waiting to be transmitted.

   NOTE 2. As a reminder that the system is in the Test mode, the Console will sound a single beep at 15-second intervals if no protection zones are violated.

   NOTE 3. In the Test mode, no alarm reports will be sent to the central station. Also, the external sounder (if used) will not be activated.

Doors and windows

Open and close each protected door and window in turn. Each action should produce three beeps from the Console. The descriptor for each protection zone will appear on the Console display.

Motion detectors

Walk in front of any interior motion detectors Listen for three beeps when the detector senses movement. While it is activated, its descriptor will remain displayed on the Console. Note that wireless PIRs will have a 3 minute lockout between transmissions to conserve battery life

Smoke detectors

Follow the test procedure provided by the manufacturer of each smoke detector to ensure that all detectors are operational and are functioning properly.

NOTE: A 2-wire smoke detector display will not clear until the Test mode is exited.

Turning off TEST mode

Enter the security code and press the OFF key.

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ARMED SYSTEM TEST

IMPORTANT! A message will be sent to the central station during the following tests. Notify the central station that a test will be in progress.

NOTE: A display of "COMM. FAILURE" (Alpha consoles) or "FC" (Fixed-Word consoles) indicates a failure to communicate (no Kissoff by the receiver at the central station after the maximum number of transmission attempts is tried).

1. Arm the system and fault one or more zones. Silence alarm sounder(s) each time by entering the code and pressing OFF. Check that Entry/Exit delay zones provide the assigned delay times.
2. Check the keypad-initiated alarms, if programmed in field *05, by pressing the Panic keys (* and #, 1 and *, and/or 3 and #). If the system has been programmed for audible emergency, the console will emit a loud, steady alarm sound. The word ALARM and a descriptor "99" will be displayed for * and #. (if 1 and * are pressed, a "95" will be displayed; if 3 and # are pressed, a "96" will be displayed). Silence the alarm by entering the security code and pressing OFF. If the system has been programmed for silent panic, there will be no audible alarms or displays. a report will be sent to the central station, however.
3. Notify the central station that all tests are finished and verify results with them.

TURNING THE SYSTEM OVER TO THE USER

1. Fully explain the operation of the system to the user by going over each of its functions as well as the User's Manual supplied.
2. In particular, explain the operation of each zone (entry/exit, perimeter, interior, fire, etc.). Be sure the user understands how to operate any emergency feature(s) programmed into the system.

   IMPORTANT!: In the spaces provided in the User's Manual, record the Entry and Exit Delay times, and those functions that have been programmed into the available pairs of PANIC keys (* and #, 1 and *, 3 and #).
3. Make sure the user understands the importance of testing the system at least weekly, following the procedure provided in the User's Manual.

TO THE INSTALLER

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with theproper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to insure the system's proper operation at all times.

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SECTION XIII
SPECIAL UL REQUIREMENTS

PRODUCTS NOT UL LISTED

- 675 Ground Start Module
- 4146 Keyswitch
- 4133 Rough-In Ring
- 4136 cover for No. 4133 Rough-In Ring
- 4145 Splice Box Kit
- 4149 702 Siren Junction Box Kit
- ABB1031 Motor Bell and Box
- 702 Outdoor Siren
- 4134-12 Metal Cabinet
- 4132LG Battery Backbox for 4AH battery

UL 609 GRADE A LOCAL MERCANTILE BURGLARY INSTALLATIONS

IMPORTANT!: Requires the use of No. 4140ATX Control.

BELL CONNECTIONS Audible alarms must be provided by the use of AB12 Bell in Box,.The AB12 must be mounted so that it can be heard outside the protected area.

INSTALLATION NOTES

1. All wiring between AB12 and 4140ATX must be in conduit, and all conduit holes (knockouts) on the Control panel shall be used or blocked from access.
2. Use 12V 4 AH (minimum) Battery.
3. Value of End-of-line resistor is 1K ohms (*41=0).
4. Entry Delays cannot exceed 60 seconds for UL Commercial Burglary Listings.
5. Bell timeout cannot be less than 16 minutes for UL Commercial Burglary Listings.
6. If 4190WH Dual Point RPMs are used, tamper detection in Field Address *24 must be enabled (enter 0).
7. Field *16 Confirmation of Arming Ding must be enabled.
8. Field *18 AC Loss Alarm after 4 hours must be enabled.
9. Field *27 24 Hour Test must be enabled.
10. Ademco WA112-1 Tamper Switch must be used to supervise cover.
11. Field 23 Multiple Alarms must be enabled.
12. Field 28 Power up in previous state must be enabled.

WIRING:
BELL CONNECTIONS:

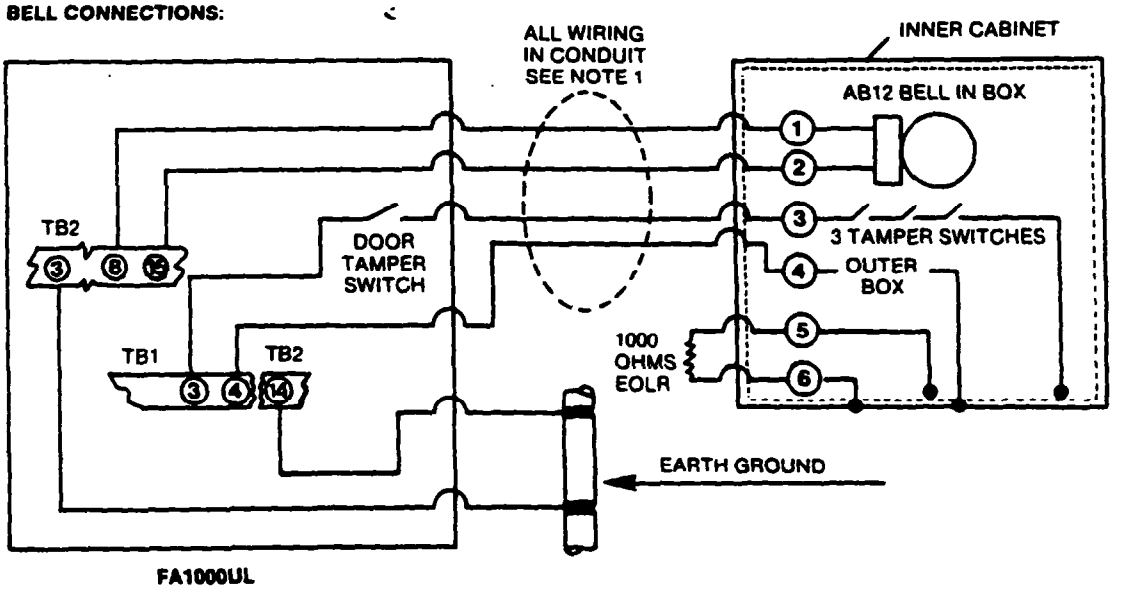

Diagram 38. No. 4140ATX UL GRADE A INSTALLATION

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UL 1610 GRADE AA CENTRAL STATION MERCANTILE BURGLARY INSTALLATIONS USING DERIVED CHANNEL

IMPORTANT!: Requires the use of No. 4140ATX Control.

NOTE: Not a UL Listed application.

BELL CONNECTIONS Audible alarms must be provided by the use of AB12 Bell in Box,.The AB12 must be mounted so that it can be heard outside the protected area.

INSTALLATION NOTES

1. All wiring between AB12 and 4140ATX must be in conduit, and all conduit holes (knockouts) on the Control panel shall be used or blocked from access. (See Diagram 38, 4140ATX Grade A Installation.)
2. Use 12V 4 AH (minimum) Battery.
3. Value of End-of-line resistor is 1K ohms (*41=0).
4. Entry Delays cannot exceed 60 seconds for UL Commercial Burglary Listings.
5. Bell timeout cannot be less than 16 minutes for UL Commercial Burglary Listings.
6. If 4190WH Dual Point RPMs are used, tamper detection in Field Address *24 must be enabled (enter 0).
7. Field *16 Confirmation of Arming Ding must be enabled.
8. Field *18 AC Loss Alarm after 4 hours must be enabled.
9. Field *27 24 Hour Test must be enabled.
10. Open/Close reporting must be enabled.

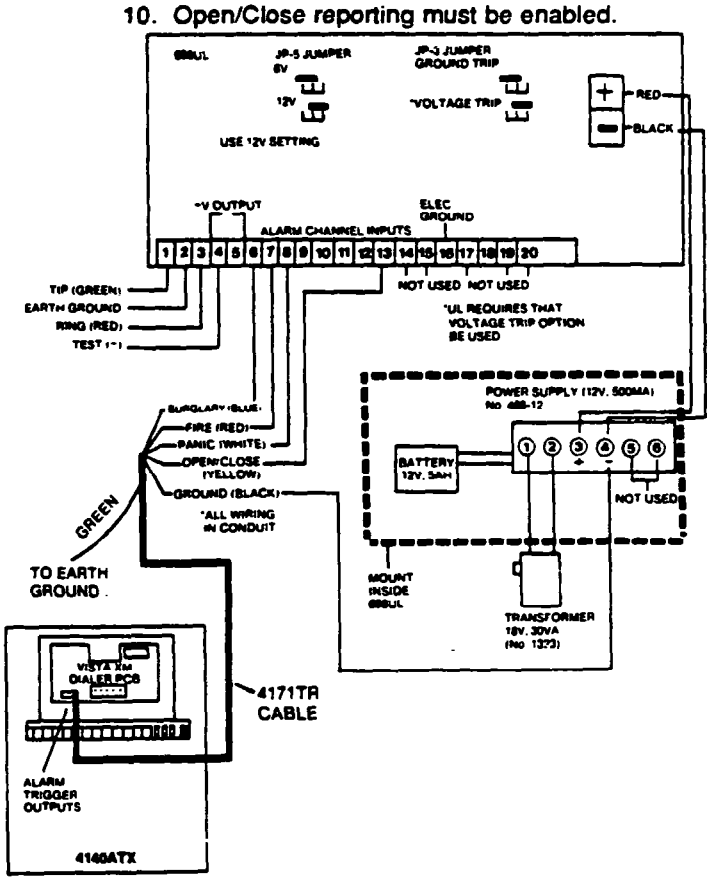

Diagram 39. COMMERCIAL GRADE AA CENTRAL STATION 4140ATX CONNECTED TO No. 698UL STU

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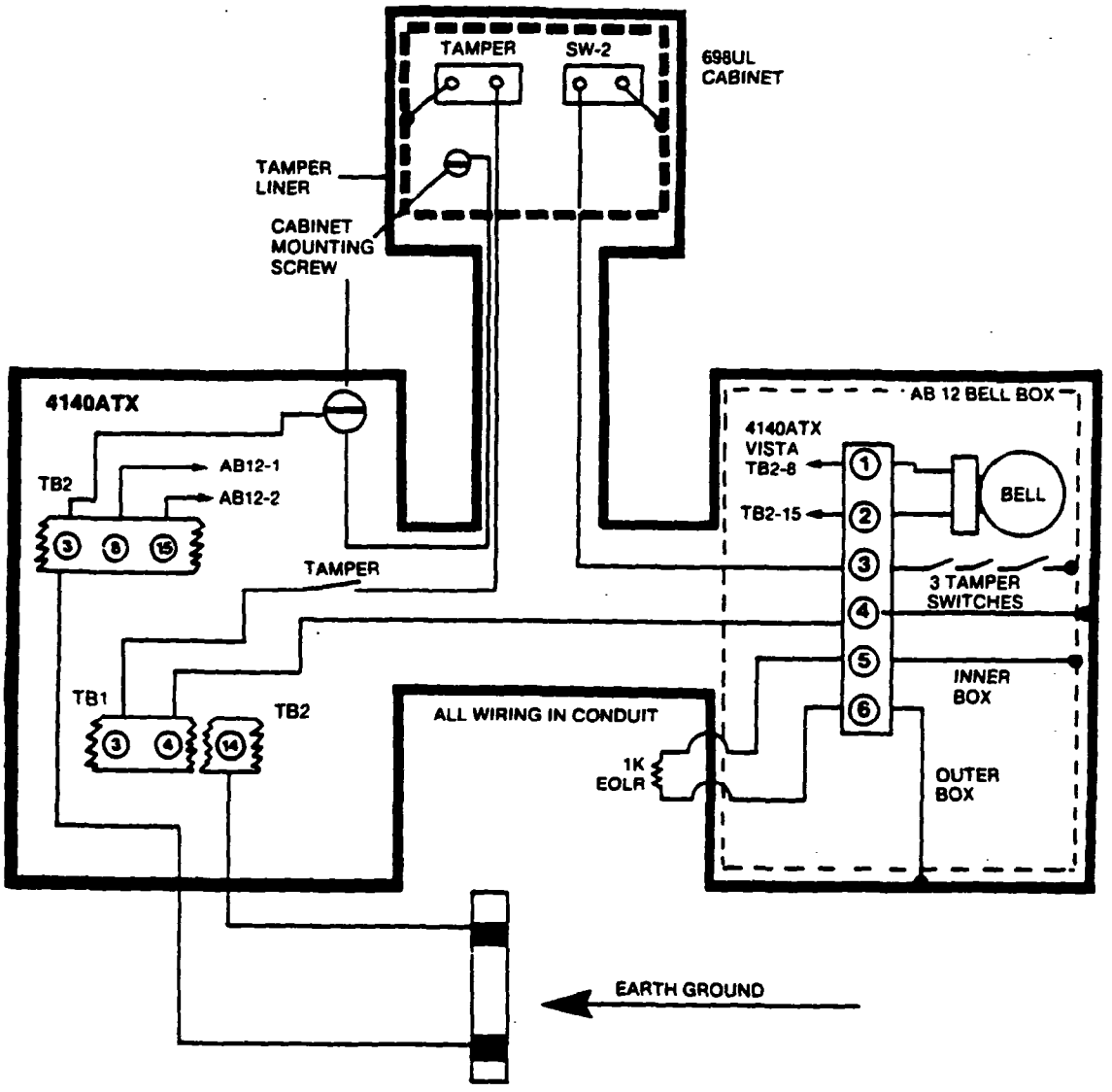

FROM
ALARM TRIGGER OUTPUTS - USE 4171TR CABLE

698 CHANNEL INPUTS

BURGLARY (BLUE) — 6
OPEN/CLOSE (YELLOW) — 13
FIRE (RED) — 7
PANIC (WHITE) — 8
GROUND (BLACK) — 488-12 TERMINAL 4

Diagram 40. UL GRADE AA TAMPER CIRCUIT WITH 698 UL STU

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UL 1610 GRADE A CENTRAL STATION MERCANTILE BURGLARY INSTALLATIONS USING LONG RANGE RADIO

IMPORTANT!: Requires the use of No. 4140ATX Control.

NOTE: Not a UL Listed application.

BELL CONNECTIONS

Audible alarms must be provided by the use of AB12 Bell in Box,.The AB12 must be mounted so that it can be heard outside the protected area.

INSTALLATION NOTES

1. All wiring between AB12 and 4140ATX must be in conduit, and all conduit holes (knockouts) on the Control panel shall be used or blocked from access. (See Diagram 38.)
2. Use 12V 4 AH (minimum) Battery.
3. Value of End-of-line resistor is 1K ohms (*41=0).
4. Entry Delays cannot exceed 60 seconds for UL Commercial Burglary Listings.
5. Bell timeout cannot be less than 16 minutes for UL Commercial Burglary Listings.
6. If 4190WH Dual Point RPMs are used, tamper detection in Field Address *24 must be enabled (enter 0).
7. Field *16 Confirmation of Arming Ding must be enabled.
8. Field *18 AC Loss Alarm after 4 hours must be enabled.
9. Field *27 24 Hour Test must be enabled.
10. Open/Close reporting must be enabled.

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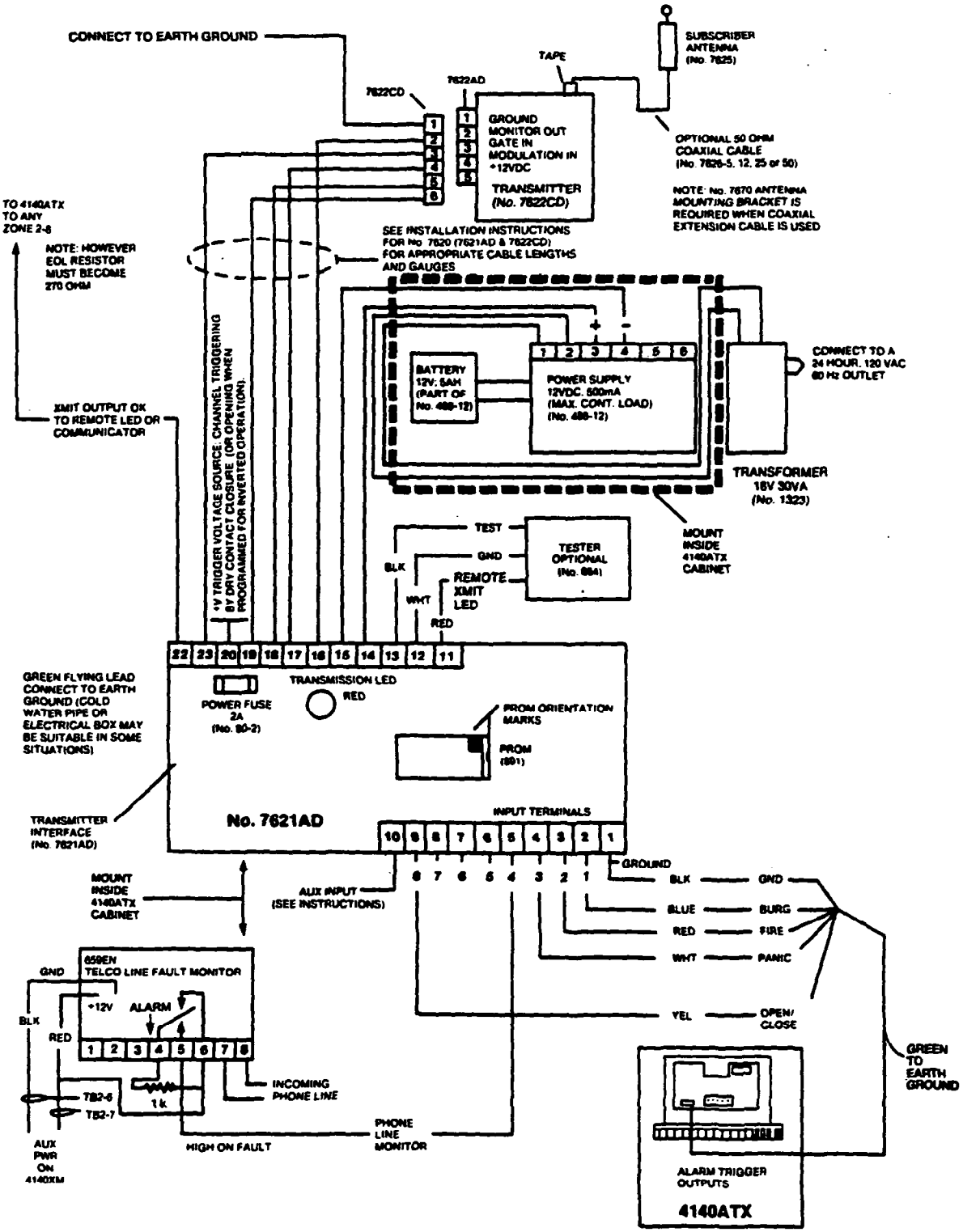
CONNECT TO EARTH GROUND
SUBSCRIBER ANTENNA (No. 7625)
TAPE
7622CD
7622AD
GROUND
MONITOR OUT
GATE IN
MODULATION IN
+12VDC
TRANSMITTER (No. 7622CD)
OPTIONAL 50 OHM COAXIAL CABLE (No. 7626-5, 12, 25 or 50)
NOTE: No. 7670 ANTENNA MOUNTING BRACKET IS REQUIRED WHEN COAXIAL EXTENSION CABLE IS USED
TO 4140ATX TO ANY ZONE 2-6
NOTE: HOWEVER EOL RESISTOR MUST BECOME 270 OHM
SEE INSTALLATION INSTRUCTIONS FOR No. 7620 (7621AD & 7622CD) FOR APPROPRIATE CABLE LENGTHS AND GAUGES
BATTERY 12V, 5AH (PART OF No. 489-12)
POWER SUPPLY 12VDC, 500mA (MAX. CONT. LOAD) (No. 489-12)
CONNECT TO A 24 HOUR, 120 VAC 60 Hz OUTLET
TRANSFORMER 18V 30VA (No. 1323)
MOUNT INSIDE 4140ATX CABINET
XMIT OUTPUT OK TO REMOTE LED OR COMMUNICATOR
+V TRIGGER VOLTAGE SOURCE, CHANNEL TRIGGERING BY DRY CONTACT CLOSURE (OR OPENING WHEN PROGRAMMED FOR INVERTED OPERATION)
TEST
GND
BLK
WHT
REMOTE XMIT LED
RED
TESTER OPTIONAL (No. 884)
GREEN FLYING LEAD CONNECT TO EARTH GROUND (COLD WATER PIPE OR ELECTRICAL BOX MAY BE SUITABLE IN SOME SITUATIONS)
POWER FUSE 2A (No. 80-2)
TRANSMISSION LED RED
PROM ORIENTATION MARKS
PROM (891)
No. 7621AD
INPUT TERMINALS
TRANSMITTER INTERFACE (No. 7621AD)
MOUNT INSIDE 4140ATX CABINET
AUX INPUT (SEE INSTRUCTIONS)
GROUND
BLK — GND
BLUE — BURG
RED — FIRE
WHT — PANIC
YEL — OPEN/ CLOSE
GREEN TO EARTH GROUND
659EN TELCO LINE FAULT MONITOR
GND
+12V
ALARM
BLK
RED
TB2-6
TB2-7
1k
INCOMING PHONE LINE
AUX PWR ON 4140XM
HIGH ON FAULT
PHONE LINE MONITOR
ALARM TRIGGER OUTPUTS
4140ATX

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UL 1610 GRADE AA CENTRAL STATION MERCANTILE BURGLARY INSTALLATIONS USING HIGH LINE SECURITY DIRECT WIRE TRANSMISSION

IMPORTANT!: Requires the use of No. 4140ATX Control.

BELL CONNECTIONS

Audible alarms must be provided by the use of AB12 Bell in Box,.The AB12 must be mounted so that it can be heard outside the protected area.

INSTALLATION NOTES

1. All wiring between AB12 and 4140ATX must be in conduit, and all conduit holes (knockouts) on the Control panel shall be used or blocked from access. (See Diagram 38.)
2. Use 12V 4 AH (minimum) Battery.
3. Value of End-of-line resistor is 1K ohms (*41=0).
4. Entry Delays cannot exceed 60 seconds for UL Commercial Burglary Listings.
5. Bell timeout cannot be less than 16 minutes for UL Commercial Burglary Listings.
6. If 4190WH Dual Point RPMs are used, tamper detection in Field Address *24 must be enabled (enter 0).
7. Field *16 Confirmation of Arming Ding must be enabled.
8. Field *18 AC Loss Alarm after 4 hours must be enabled.

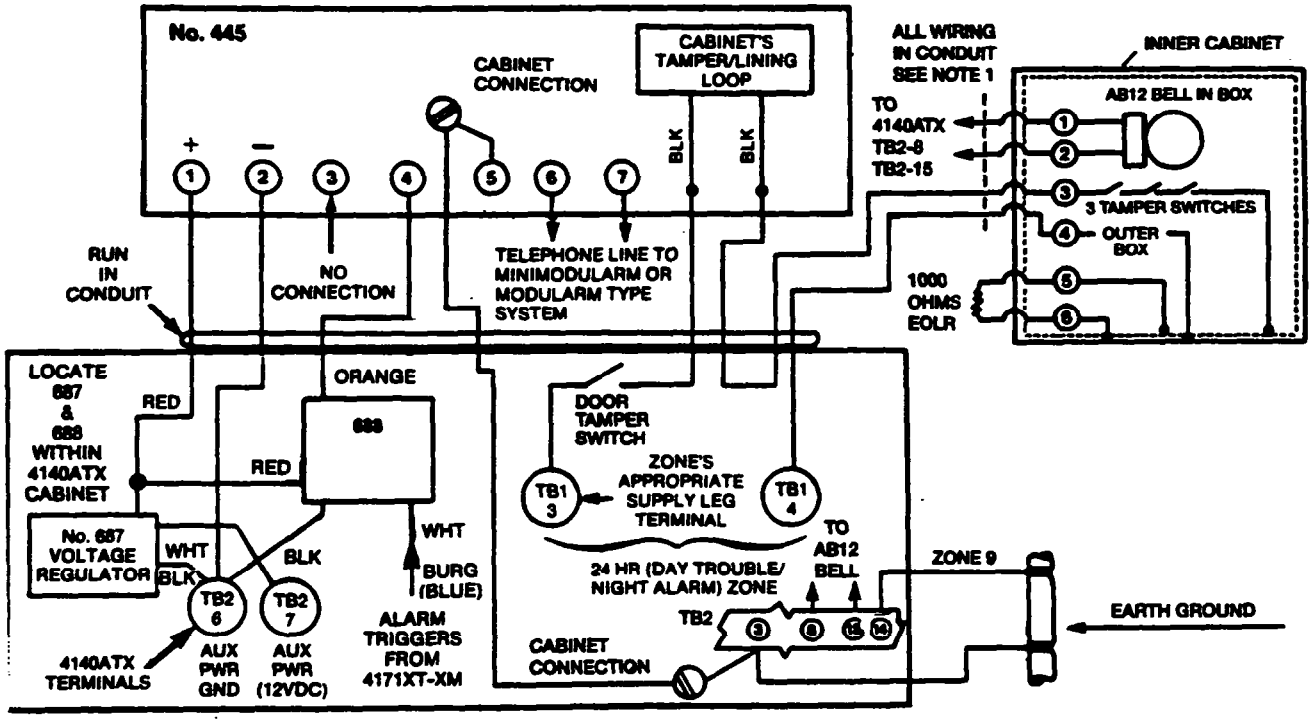

Diagram 42. UL GRADE AA CENTRAL STATION INSTALLATION USING 445 GRADE AA LINE SECURITY TRANSMITTER

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UL 1610 & UL 365 GRADE A CENTRAL STATION & POLICE STATION MERCANTILE BURGLARY INSTALLATIONS USING HIGH LINE SECURITY DIRECT WIRE TRANSMISSION

IMPORTANT!: Requires the use of No. 4140ATX Control.

BELL CONNECTIONS

Audible alarms must be provided by the use of AB12 Bell in Box,.The AB12 must be mounted so that it can be heard outside the protected area.

INSTALLATION NOTES

1. All wiring between AB12 and 4140ATX must be in conduit, and all conduit holes (knockouts) on the Control panel shall be used or blocked from access. (See Diagram 38.)
2. Use 12V 4 AH (minimum) Battery.
3. Value of End-of-line resistor is 1K ohms (*41=0).
4. Entry Delays cannot exceed 60 seconds for UL Commercial Burglary Listings.
5. Bell timeout cannot be less than 16 minutes for UL Commercial Burglary Listings.
6. If 4190WH Dual Point RPMs are used, tamper detection in Field Address *24 must be enabled (enter 0).
7. Field *16 Confirmation of Arming Ding must be enabled.
8. Field *18 AC Loss Alarm after 4 hours must be enabled.

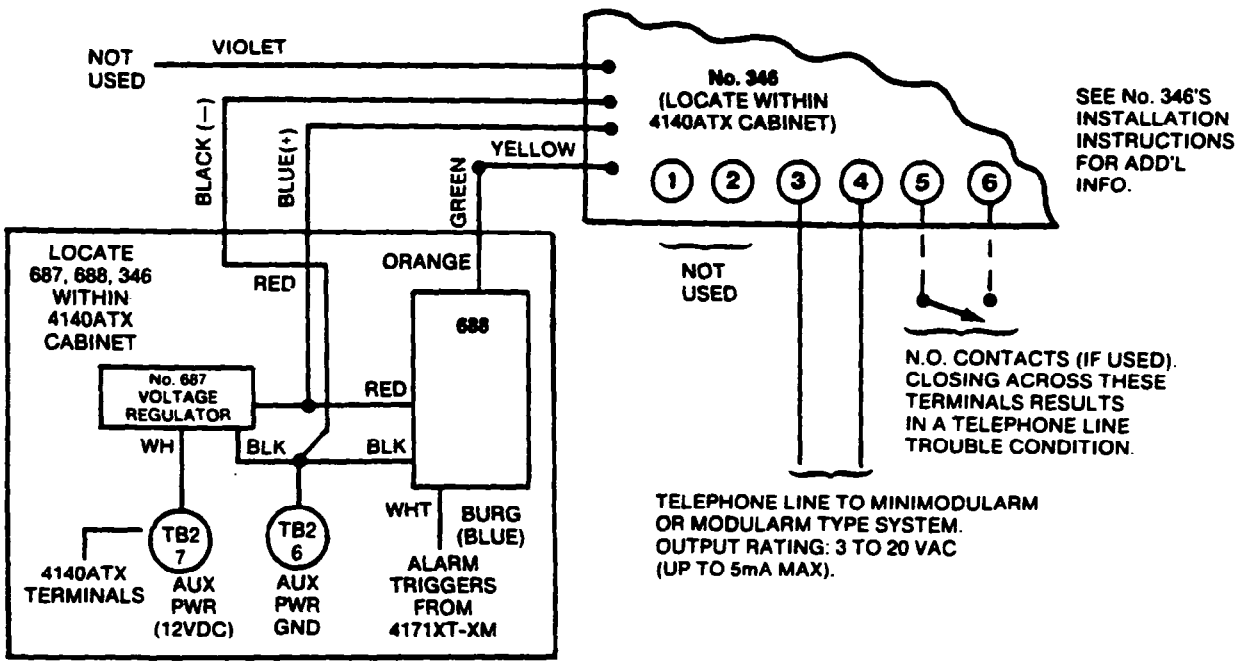

Diagram 43. GRADE A CENTRAL STATION INSTALLATION USING 346 REVERSING RELAY MODULE

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UL 1023 HOUSEHOLD BURGLARY INSTALLATIONS

NOTE: CAN USE THE 4140XM, 4130XM, 5130XM OR 4140ATX.

INSTALLATION NOTES

1. 4140XM/4140ATX max. allowable current draw = 400 mA/UL
   Aux. Power
   = 300 mA siren
2. 4130XM/5130XM max. allowable current draw = 200 mA/UL
   Aux. Power
   = 100 mA siren
3. (*09) Entry delay #1/(*11) Entry delay #2 cannot exceed 45 seconds.
4. (*10) Exit delay #2/(*12) Exit delay #2 cannot exceed 60 seconds.
5. (*13) Alarm sounder duration cannot be less than 4 minutes.
6. (*41) Use of End-of-Line resistors are mandatory for all UL installations.
7. (1*28) RF transmitter low battery annunciation must be enabled.
8. (1*30) 4280 supervisory check-in monitoring interval cannot exceed 12 hours.
9. (1*31) RF transmitter check-in interval cannot exceed 12 hours.
10. (1*49) Audible sounder for transmitter check-in failure must be enabled.
11. (*28) Power up in previous state must be enabled.
12. (*23) Multiple Alarms must be enabled.
13. (*82) Disable Swinger Suppression; enter "00".

UL 985 HOUSEHOLD FIRE INSTALLATIONS

NOTE: CAN USE THE 4140XM, 4130XM, 5130XM OR 4140ATX.

INSTALLATION NOTES

1. (*21) Fire timeout must be disabled (no fire timeout allowed).
2. (1*28) RF transmitter low battery annunciation must be enabled.
3. (1*30) 4280 supervisory check-in monitoring interval cannot exceed 12 hours.
4. (1*31) RF transmitter check-in interval cannot exceed 12 hours.
5. (1*49) Audible sounder for transmitter check-in failure must be enabled.
6. (*41) Use of End-of-Line resistors is mandatory for all UL installations.

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SECTION XIV
TROUBLESHOOTING

— A. CONSOLES —

SYMPTOM	ACTION
Console is inoperable; erratic display	• Power down completely (AC + battery), disconnect the battery, and power up again (AC only). • Check that auxiliary voltage is between 13.5VDC-14.0VDC. If not, disconnect all auxiliary devices, and take another reading. If within the above range, there is too much current being drawn by the auxiliary devices. (see the SPECIFICATIONS section for the current draw of each device). If still not within the above range, check incoming power from the No. 1350 (or 1360) power pack. Voltage should be between 18-22VDC with the control hooked up, and 20-24VDC with no load. If below 18VDC, carefully check the AC supply for a minimum of 110 VAC. • With all auxiliary devices and battery still disconnected, check the voltage on the red & black battery leads. It should be 13.65VDC (approx.). If not, replace the Control. If it is @ 13.65VDC, the battery may not be at full charge (allow the battery to charge 4-6 hours before reconnecting the auxiliary devices) or the battery may be bad, and not able to hold a charge.
Console displays "Not Ready" but no zone is displayed when the [*] ready key is depressed	• Check to make sure there is a zone type response entered in program field *05 for *97 (polling loop short). If no zone response is entered and a loop short occurs, the display will only read "NOT READY", without an explanation. • Check to determine if a right loop has been enabled for an RPM in a zone expanded system and no zone response is assigned to that sensor loop.

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— B. HARD-WIRED ZONES, 1-9 —

SYMPTOM	ACTION
Zone 1 in trouble ("CHECK")	• If programmed for fire or burglary using open-circuit sensors, a 13,000 ohm EOLR must be used across the zone, at the last device, as described in the SYSTEM CONFIGURATION: ZONES section.
Zones 2-8 not detecting faults when their EOLRs are shorted (READY display stays on)	• If using EOLRs, check that program field *41=0; if not using EOLRs, *41=1.
Zone 9 is indicating a fault ("READY" will not appear)	• This zone is for closed circuit, unsupervised use only. Do not use open circuit devices or an EOLR on this zone.
Zone 9 false alarms periodically	• This zone has a response time of 5-10 milliseconds, and should be used with "Fast response" devices, such as vibration sensors or glass break sensors, only. If devices with a response time of greater than 10 milliseconds are used, the zone may false alarm due to contact "bounce", if used in areas where vibrations may occur.
Zones 1-9 not detecting faults (READY light stays on)	• Check program fields 1*18 and 1*19 to make sure the wired zone(s) in question have not been enabled as RF zones.

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— C. RPMs —

SYMPTOM	ACTION
Zones indicating "CHECK" conditions	• Check that the DIP switches are set correctly. • If only left loops are being used, make sure program fields *06, *07, *08, 1*10, 1*11, 1*12, and 1*13 are programmed as "0". • If both left and right loops are being used, make sure program fields *06, *07, *08, 1*10, 1*11, 1*12, and 1*13 are programmed with "0"s for the left loops and "1"s for the right loops. NOTE: On a 4190WH you cannot use a right loop unless the left loop is used also. • Check polling loop voltage at the control as well as at each RPM. There should be fluctuating 8-11VDC on the loop. If there is no voltage or steady voltage, check that the 4152LMB is not shorting against the dialer board (there should be "fish paper" installed in between these boards). • Check if programmed for tamper detection in program field *24. If *24 = 0, the RPM will come up in trouble when its cover is removed (4190WH only). • If a 4208 is being used for zones 10-17, program field *86 must be set for "1", and the DIP switches should be set as follows: 1,2,3,4, = ON, 5 = OFF. If any other 4208 configuration is being used, field *86 must = "0" and the DIP switches set according to the instructions accompanying the 4208.
Zones indicating fault conditions ("READY" not displayed)	• If using a 4190WH, make sure that the jumpers are set up in accordance with the EOLR being used on the left loop (the right loop never uses an EOLR). See the SYSTEM CONFIGURATION: ZONES section for proper use of these jumpers and EOLRs. • If using a 4208, make sure the zones are set up with the correct EOLRs. See the SYSTEM CONFIGURATION: ZONES section for 4208 usage. • If using a 4196 right loop, make sure only closed-circuit devices are used, and check the program fields *06 through *08, and 1*10 through 1*13 to make sure the zones in question are enabled as right loops ("1").
"97" appears in console display and rapid beeping occurs	• This indicates that a "short" has been detected on the polling loop. • Check that polling loop polarity is correct at the control as well as at each RPM. • Disconnect the polling loop from the 4152LMB and check for continuity from the positive (+) side of the loop to ground. There should be no continuity to ground. If there is a ground, the source must be found and eliminated.
"READY" display not going out when zones are faulted	• Check program fields 1*19 through 1*25 to make sure that the zones in question are not enabled as RF zones. • Make sure each zone in question has been programmed for a response in fields *02-*05 and 1*01-1*05.
Console displays "NOT READY" but no zone is displayed when [*] READY key is depressed	• Check program fields *06 through *08, and 1*10 through 1*13 to make sure that right loops are enabled for the correct zones. If no right loops are being used, these fields should = "0". • Check program field *05 to make sure there is a zone type response entered for "97". If a polling loop short occurs and no response is entered for "97", the display would indicate "NOT READY" with no explanation.

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— D. WIRELESS —

SYMPTOM	ACTION
"88" or "90" appears in console display and rapid beeping occurs	• The receiver is not receiving any signals from any of the transmitters in the system. An "88" is for the 2nd 4280; a "90" is for the 1st 4280. These displays are enabled by assigning a zone response type in program fields 1*08, and 1*09. The recommended response is either zone type 05 or 07 (see the ZONE TYPE DEFINITIONS section. wireless installation. • Check that the antenna is installed properly and is not shorted to any metal object, refer to WIRELESS EXPANSION section for details. • Check that the transmitters are powered up with fresh 9 volt batteries. • Check that the house ID's match between transmitters and the 4280. • Determine if anything is blocking transmission to the 4280 (ex: metal cabinets or shelves, etc.) • Remove the 4280's cover and put the system in the test mode, then see if the transmitters check-in. If not, move the 4280 to another location and test again.
"89" or "91" appears in console display and rapid beeping occurs	• The 4280 is not responding to the Control panel. An "89" refers to the second 4280 and a "91" refers to the first 4280. • Check that the 4280's cover is on and the magnet is in close proximity to the reed switch. • Check that the polling loop is attached to the 4280. • Determine that the total current draw on the polling loop is not more than 64mA. See SPECIFICATIONS. If the draw does exceed 64mA, install a 4197 loop extender module as described in the WIRELESS EXPANSION section, or power the 4280 from auxiliary power, as described. • Check that the polling loop length is in agreement with the recommended wire gauge. If the length exceeds what is recommended, install a 4197 loop extender module as described in the WIRELESS EXPANSION section.
Zones, not programmed in the system, are indicating "CHECK" conditions	• Check program fields *02 through *05, and 1*01 through 1*05 to make sure all unused zones are 00s. • Check program fields 1*18 through 1*25 to make sure that all non-RF zones are 0s.
Zones indicating "NOT READY" condition, but transmitter contact loop is intact	• Put the system in the SNIFFER MODE for at least 2 hours, to see if another system in the area is using the same house ID. If so, change this system's house ID number at the 4280 and at all transmitters. • Make sure zones in question are selected as RF in fields 1*18-1*25.

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One or more transmitters are indicating "CHECK" conditions after a while; console beeping rapidly:

- Check that the transmitters have the correct house ID programmed.
- Check that the transmitters have the correct transmitter ID assigned.
- Check that the transmitters have fresh batteries.

"97" appears in the console display and rapid beeping occurs

- This indicates that the polling loop has either a direct short, or a short to ground on the (+) side. Might also indicate that the 4280 RF Receiver is causing the short (disconnect 4280 to verify).
- Check that polling loop polarity is correct at the Control panel, as well as at each 4280.
- Check continuity from (+) side of the loop to ground (disconnect the polling loop from the Control first!) - an open should be read (no continuity). If a short to ground exists, find and eliminate the short.
- Check voltage across the polling loop at the Control panel as well as at each 4280 - there should be fluctuation between 8-11VDC. If there is no voltage or steady voltage, check that the 4152LMB is not shorting against any components on the dialer board - there should be "fish paper" installed between these two boards.

"READY" display not going out when RF zones faulted

- Check that the house ID's match between the transmitters and the 4280.
- Check that the 4280 is enabled in program fields 1*26 for the first 4280 and 1*27 for the second 4280.
- Check that the zones in question are enabled for RF in program fields 1*18 through 1*25.
- Check that a zone response is programmed for the zones in question, in fields *02 through *05, and 1*01 through 1*05.
- Check that the 4280's antenna is properly installed.
- Remove any sensors from the transmitters and short across the transmitter terminals. Then fault the transmitter to see if the "READY" light goes out. If it does not go out, check the programming for that particular transmitter; if it does go out, check the sensors on that zone.
- Move the 4280 to another location for better reception.

Console displays "NOT READY" but no zone is displayed when [*] READY key is depressed

- Check program field *05 to make sure "97" has a zone type response entered. If a loop short occurs and no response is entered for "97", the console would display only "NOT READY", with no explanation.
- A Silent Panic condition may be present. Key the security code + OFF to see if the condition clears.

While in the GO/NO GO "TEST" mode some or all of the transmitters are not responding, or are responding irregularly

- This test mode cuts the receiver's sensitivity by 50%. This means that as long as a transmitter responds, its location is satisfactory.
- Move the affected transmitters to another location and re-test. There may be something blocking its transmission path.
- If all transmitters are affected, move the receiver to another location. There may be something blocking its reception.
- If no receiver location can be found that can reliably receive *all* transmitters, add a second 4280 in a different location in the premises to extend the RF coverage of the system.

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— E. COMMUNICATIONS —

SYMPTOM	ACTION
"FC" or "COMM FAILURE", is displayed	• "FC" (4130XM/4137) or "COMM FAILURE" (5130XM/5137) indicates that the communicator has attempted 8 times to send a report to the central station but did not get kissoff. • Check with the central station to make sure the programmed format is acceptable to the central station's receiver. (Check program field *46, PRIMARY TRANSMISSION FORMAT). • Check program field *49 to see if single message with checksum has been enabled. The central station receiver might not be able to handle checksum. • Check program field 1*34 to see if split reporting is enabled. If only a primary central station phone number is being used, field 1*34 must = 0! • Check program field *31, PABX ACCESS CODE. Enter up to 4-digits only if an outside line must be accessed before the number is dialed or if "call waiting" is to be suppressed. The latter feature must be obtained from the local telephone company. To make sure this field is empty, key *31* to erase this location. • Check program field *30 for either TouchTone or rotary dialing. In most cases, if rotary is selected dialing will be successful, but if TouchTone is selected, then the line must be a TouchTone line. It is possible that a line that had permitted TouchTone service previously was now being blocked from that use by the telephone company because the user was not paying for that service. At installation time, it is important to check with the user to determine if they are paying for TouchTone service. • In some cases, the telco switching network may cause a delay before the acknowledge handshake reaches the communicator. If so, the communicator may hang up before the acknowledge is received. If this occurs, enter a "1" in program field *45, to increase the wait time for acknowledge. • If SESCOA/RADIONICS format is being used, check program field *50. If hexadecimal codes are being sent, enter a "0". If only 0-9 is being sent, either a "1" or a "0" is acceptable. Check with the central station to verify acceptance of B-F codes. • If 3+1/4+1 LOW SPEED is being used, check program fields *53 and *54 (4+2 selections). There should be "0" in both of these fields. Some central station receivers cannot handle 4+2 reporting. • Check the telephone numbers programmed in fields *33 & *34. • Listen to the outgoing call attempts using a handset. • Check the wiring on the Telco connector of the 4171XT-XM/4171XM.

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SECTION XV
GLOSSARY OF TERMS

ACKNOWLEDGMENT TONE — See HANDSHAKE.

ALPHA DESCRIPTOR — The installer programmed zone identification using an English language readout, rather than just the zone number. Ex: "BACK DOOR" (5130XM or 5137 console).

ALPHA-NUMERIC DISPLAY — An LCD using a set of characters which includes both letters and numbers, as well as punctuation and mathematical symbols. Ex: "EXIT DOOR #6"

ANTI-JAM — A 30 second hangup to ensure any incoming or outgoing calls are disconnected. This occurs if first attempt is unsuccessful.

CALL-BACK NUMBER — When downloading, the phone number at which the initiating computer is attached; the number that the control panel must call back to make a successful connection in order to download.

CLOSED/CIRCUIT — In an alarm system, a zone, or switch which must be opened to cause an alarm, or fault; when the circuit is closed, the system is "ready".

dB — The abbreviation for "decibel"; relates to how loud a sounder is, usually rated at 10 feet. Ex: 85dB @ 10 feet.

DISKETTE — A flexible plastic disk used to store computer information, also known as a floppy disk. The most common sizes are the 3-1/2" and the 5-1/4" disks.

DOWNLOADING — To remotely access, control, and program an alarm panel over normal phone lines; to transmit data over the phone lines, from the computer to the alarm panel.

DTMF — Abbreviation for Dual Tone Multi-Frequency; TouchTone.

EEROM — Abbreviation for Electrically Erasable Read Only Memory which is an IC chip that contains program information to operate the system which can be changed by the installer. In addition, it will not lose memory when power is lost for long periods of time.

ENCRYPTION — The coding of signals between a computer and the system during downloading into an unrecognizable form which does not follow any common sequence, and is used to prevent unauthorized access to programming information.

EOLR — Abbreviation for End of Line Resistor, which is a resistor placed at the very last device in an alarm zone for the purposes of supervising that zone. The logic of the Control panel will differentiate between an open and a short in that zone.

EXPANDED

1. Expanded Communication: when expanded reporting is enabled openings and closings by user, and alarms/troubles by zone are reported;
2. Expanded zones: term used to describe zones 10-64 in the VISTA XM system.

EXTERNAL SOUNDER — A siren or bell that is mounted outdoors for the purpose of alerting the public.

FULL READ/WRITE — Pertaining to downloading, if an operator is given full read/write access to the database, he is able to read, and/or change any and all information in that database.

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HANDSHAKE	1. In central station communications: the handshake is the acknowledgment frequency, usually 1400 Hz or 2300 Hz, that the receiver gives to a communicator when calling in an alarm report; 2. DOWNLOADING: when the computer calls up the control panel, the panel gives the computer a handshake as a "go ahead" signal to send the data.
HARD COPY	A computer print-out, on paper, as opposed to a display on a screen.
HARD DRIVE	An internal disk storage device to a PC, usually designated as drive "C". Also known as hard disk.
INTERNAL SOUNDER	A siren or bell that is mounted indoors to alert the occupants of the premises.
KISS-OFF TONE	The tone given by the central station receiver to the communicator telling it the message was received and is valid.
LCD	Abbreviation for Liquid-Crystal Display, which refers to the display on consoles.
LINE SEIZURE	The communicator disconnects all local phones when attempting to dial out to central station.
LOOP MODULE	A 4152LMB module, which is connected to the 4171XT-XM, and used to expand the VISTA XM up to 64 zones via a 2-wire polling loop.
MICROPROCESSOR	The central processing unit of any computer, or computer-based device, usually made on a single silicon chip which processes and makes decisions for the system.
MODEM	Abbreviation for "modulator/demodulator"; a device used to interface a computer with a telephone line. It converts the computer's binary code to a form that can be transmitted over the phone line. A modem at the receiving end must then convert this data back to binary to allow the two computers to "talk"; in the case of downloading, the VISTA XM Controls have a built-in modem to accomplish these conversions.
MODIFY	To program; to change.
MS DOS	Abbreviation for MicroSoft Disk Operating System; necessary in order to operate the computer. Without this, the computer will not run any programs; MS DOS revision 3.1 or higher is necessary to DOWNLOAD.
NON-VOLATILE	Refers to EEROM memory which cannot be erased, even if all power is lost.
RESPONSE TIME	The time it takes the Control panel to sense a fault from the time the fault actually occurred; normal response time is usually 350 miliseconds, while fast response time is usually 5 to 10 milliseconds in duration.
ON-LINE	Active communications in progress, as in downloading, between the Control panel and the computer.
OPEN-CIRCUIT DEVICE	A device such as a switch or pushbutton, that closes or shorts when activated; this type of device must be EOLR supevised in VISTA.
PC	Abbreviation for Personal Computer or Desk-Top Computer.(Ex: IBM PC)
PART READ/WRITE	Pertaining to downloading, if an operator is given PART READ/WRITE access he or she can read and write over all but the system's access codes.
PERIPHERAL	Any input-output computer device that is external to the computer, Ex: printer; any device external to the main control, Ex: Keypad.
POLLING LOOP	2-wire loop used in conjunction with the 4152LMB (Loop Module) for zone expansion.
PROM	Abbreviation for Programmable Read-Only Memory, which is an IC chip that contains program information to operate the system. Unlike an EEROM, the PROM can be programmed only once, because each address is permanently "burned-in", and cannot be changed.

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READ ONLY	Pertaining to downloading, an operator with this level of access can only read information from the database; cannot overwrite any information.
REDUNDANCY	Using two systems so that if one fails the other will carry on, as when two 4280 receivers are used, to insure that the transmitters get through to at least one of the receivers.
RF RECEIVER	A wireless receiver, such as the 4280. RF is an abbreviation for Radio Frequency.
RING/TIP	With regard to telephone lines, the "ring" side is the (-), or "ground" side of the line, and the "tip" side is the (+) side of the line. Typical phone line voltage is -48VDC.
ROUGH-IN RING	A metal ring used during new construction and is attached to wall studs to designate where the VISTA Control or console is going to be mounted, so that the plasterer can cut an opening in the wall for it when the walls are installed.
RPM	Abbreviation for Remote Point Module, which is used on the polling loop for zone expansion. EX: 4190, 4208.
RS232	Typical computer serial interface using pins 2, 3, 7, and 20, between computer and printer, or other peripheral device.
SELF-CONTAINED	Refers to when the Control panel and keypad are contained in one unit.
SPDT	Abbreviation for Single-Pole, Double-Throw; a 3-terminal switch consisting of a common terminal, a normally closed side, and a normally open side; can be used in either open-circuit or closed-circuit applications; when activated, the closed side opens, and the open side closes.
SUPERVISED ZONE	A zone which uses an end-of-line resistor to differentiate between a short across the resistor, and an open in the circuit, as in a Fire zone.
UNSUPERVISED ZONE	A zone that does not use end-of-line resistors and recognizes only open circuits, as in burglary zones.
UPLOADING	To send data from the Control panel to the computer.
VOLATILE	Refers to Random Access Memory (RAM), which loses all data if power is lost.
ZONE EXPANSION	Zones 10 through 64 using the 2-wire polling loop with RPMs, 4280 wireless, or both.

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SECTION XVI
SPECIFICATIONS

4140XM/4140ATX CONTROL

1. Physical:
   Width: 4140XM-12 inches (305 mm) 4140ATX-12 inches (305 mm)
   Height: 4140XM-12 inches (305 mm) 4140ATX-17 inches (430 mm)
   Depth: 4140XM-3 inches (76 mm) 4140ATX-4-3/4 inches (120 mm)
2. Electrical:
   Voltage Input: 18V DC, 850 mA max. (from plug-in Power Pack, Ademco No. 1360),
   Rechargeable back-up battery: 12V DC, 4 AH (Gel type)
   Alarm Sounder: Wet contact relay (2.8A max. contact rating @ 28V DC).
   Output: Can drive 12V motor driven bells (100 mA each) - AMSECO MSB10G or ABB1031. Do not use solenoid operated bells with the 4140XM. The 4140ATX application can drive one 702 or two 702 (series connected) self-contained 20-watt sirens. Do not connect two 702s in parallel.
   Auxiliary Power Output: 11.5-14.0V DC
   700 mA max. for non-UL installations
   400 mA max. for UL installations
   Standby Time: 4 hours with Auxiliary load of 700 mA using 4 AH Battery
   6 hours with Auxiliary load of 400 mA using 4 AH Battery
3. Fuses:
   Battery Fuse: 3A Slo Blo (Ademco No. 90-28)
   Auxiliary Power: 1A (Ademco No. 90-29)
   Alarm Relay Power: 3A Slo Blo (Ademco No. 90-28)
3. Communication:
   Ademco Express, High Speed, & Contact Reporting: 10 characters/sec, DTMF (TouchTone) Data Tones, 1400/2300 Hz ACK, 1400 Hz KISSOFF
   Ademco Low Speed: 10 pulses/sec, 1900 Hz Data Tone, 1400 Hz ACK/KISSOFF.
   SESCOA: 20 pulses/sec, 1800 Hz Data Tone, 2300 Hz ACK/KISSOFF, Variable Interdigit Timing (Use for code reports 0-9).
   RADIONICS: 20 pulses/sec,1800 Hz Data Tone, 2300 Hz ACK/KISSOFF. Fixed Interdigit Timing (Use for code reports 0-9, B-F).
   Line Seize: Double Pole
   Ringer Equivalence: 0.7B
   FCC Registration No.: AC 398U-68192-AL-E

5137/4137 REMOTE CONSOLE

1. Physical:
   Width: 8.4 inches (213 mm)
   Height: 4.75 inches (121 mm)
   Depth: 1.1 inches (28 mm)
2. Electrical:
   Voltage Input: 12V DC
   Current Drain: 60 mA (4137)
   90 mA (5137)
3. Interface Wiring:
   RED: 12V DC input (+) - auxiliary power
   BLUE: 18V DC input (+) - from optional 1350 or 1360 Power Pack*
   GREEN: Data In
   YELLOW: Data Out
   BLACK: Ground and (-) connection from optional 1350 or 1360 Power Pack
   * Cannot be used in UL installations.

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4152LMB ZONE EXPANSION LOOP MODULE

1. Physical:
   Width: 3.25 inches (88 mm)
   Height: 2.63 inches (67 mm)
   Depth: 0.63 inches (16 mm)

2. Electrical:
   Voltage Output: 7-11 volts (w/1 kHz modulation)
   Current Output: 65 mA (part of the 400 or 700 mA auxiliary power pool)

3. Interface Wiring:
   Terminal 1: Loop(+)
   Terminal 2: Loop(-)

4. Wiring Run Permitted to Expansion modules:

WIRE GAUGE	MAX WIRE RUN
22 (0.64 mm O.D.)	650 ft (200 m)
20 (0.81 mm O.D.)	950 ft (290 m)
18 (1.0 mm O.D.)	1250 ft (460 m)
16 (1.3 mm O.D.)	1650 ft (730 m)

4208 ZONE EXPANDER

1. Physical:
   Width: 3 7/8" (98 mm)
   Height: 7" (17 mm)
   Depth: 1 3/8" (35 mm)

2. Electrical:
   Voltage Input: 8-11 Volts (w/1 KHz Modulation)
   Current Drain: 16 mA

4280/4280-8 RECEIVER/TRANSPONDER

1. Physical:
   Width: 4.6" (117 mm)
   Height: 7.6" (193 mm), 16.5" (419 mm) with antenna
   Depth: 2.5" (64 mm)

NOTE: The antenna does not have to be vertically pointed up. Alternatively, the height and width dimensions can be interchanged if the unit is mounted with the antenna in a horizontal position.

2. Electrical:
   Voltage: 7-11 Volts (with 1kHz modulation from an Ademco polling loop) or 7-14 VDC
   Input Current: 40mA

4190WH DUAL POINT RPM

1. Physical:
   Width: 2-1/8 inches (53 mm)
   Height: 3-1/4 inches (81 mm)
   Depth: 1 inch (25 mm)

2. Electrical:
   Voltage Input: 8-11 volts at 1 mA
   Current Drain: 2 mA (High current)
   1 mA (Low current)

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5711, 5711WM, 5715 (BURGLARY) TRANSMITTERS:

1. Physical:

	No. 5715		No. 5711, 5711WM	
Width:	2-9/16"	(65mm)	1-5/16"	(33mm)
Height:	4-13/16"	(122mm)	5-7/8"	(149mm)
Depth:	15/16"	(24mm)	1-1/2"	(38mm)

2. Electrical:

Voltage: 9V Lithium Type Battery: Ademco No. 465, Kodak U9VL
9V Alkaline Type Battery: Ademco No. 464, Eveready 522, Duracell MN1604

Battery should be changed at least annually or within 30 days after a BAT message indication (7 days if the transmitter sees frequent daily activation), whichever occurs sooner. Battery change of Lithium battery can be at five year intervals for non-UL usages.

Loop: 100 msec response for detection of an open (4 msec option on No. 5715).
Limit loop resistance to 10,000 ohms max.

Range (all units): 200 ft nominal (60m), indoor.

Addressability: 5 bit house code: 31 code combinations
6 bit device code (5711, 5711WM, 5715): 63 code combinations.

5775 PASSIVE INFRARED (BURGLARY) DETECTOR/TRANSMITTER:

1. Physical:

Width: 3-1/16" (78mm)
Height: 3-13/16" (97mm)
Thickness: 2-5/16" (59mm)

Protection Pattern: 84 degree span, with coverage up to 35 feet (10m)

2. Electrical:

Voltage: 9V Lithium Type Battery: Ademco No. 465, Kodak U9VL
9V Alkaline Type Battery; Ademco No. 464, Eveready 522, Duracell MN1604

Change battery at least annually or within 30 days after a BAT message indication (7 days, if the transmitter sees frequent daily activation), whichever occurs sooner. Battery change of Lithium battery can be at three year intervals for non-UL usages.

Transmission Range: 200 ft nominal (60m), indoor.

Addressability: 5 bit house code: 31 code combinations
4 bit device code: 16 code combinations [32-47].

For additional information, see instructions accompanying the No. 5775.

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5706 SMOKE DETECTOR/TRANSMITTER:

1. Physical: Diameter: 6-1/2" (165mm)
   Height: 1-1/16" (27mm)

2. Electrical:

   Voltage: 9V Lithium type battery: Ademco No. 465, Kodak U9VL
   9V Alkaline type battery: Ademco No. 464, Eveready 522, Duracell MN1604.

   Battery should be changed at least annually or within 30 days after a BAT message indication, whichever occurs sooner. Battery change of Lithium battery can be at three year intervals for non-UL usages.

   Range: 200 ft nominal (60m), indoors.

   Addressability: 5 bit house code: 31 code combinations
   3 bit device code: 8 code combinations (48-55).

5701 EMERGENCY (PANIC) TRANSMITTER:

1. Physical:

Width:	2-9/16"	(65mm)
Height:	4-13/16"	(122mm)
Thickness:	1-5/16"	(24mm)

2. Electrical:

   Voltage: 9V Lithium type battery: Ademco No. 465, Kodak U9VL

   9V Alkaline type battery: Ademco No. 464, Eveready 522, Duracell MN1604.

   Battery should be changed at least annually or within 30 days after a BAT message indication, whichever occurs sooner. Battery change of Lithium battery can be at five year intervals for non-UL usages.

   Range: 200 ft. nominal (60m), indoor.

   Addressability: 5 bit house code: 31 code combinations
   1 bit device code: 2 code combinations (62 or 63).

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4194WH REED SWITCH SENSOR/RPM (WIDE GAP)

1. Physical: 5/8" (16 mm) W, 3/4" (18 mm) H, 4-1/4" (108 mm) D

2. Electrical: Voltage Input: 8-11 volts at 1 mA
Programming: DIP switch

3. Usage: Gap: 3/8" min. (10 mm), 1" max. (25 mm)

4139WH REED SWITCH SENSOR/RPM (SURFACE MOUNT)

1. Physical: 1/2" (13 mm) W, 9/16" (14 mm) H, 2-1/2" (64 mm) D
2. Electrical: Voltage Input: 8-11 volts at 1 mA
Current Drain: 0.5 mA
Programming: Separate No. 4201 Programmer needed.

3. Usage: Gap: 7/8" max. (22 mm)

4191WH RECESS MOUNT REED SENSOR/RPM

1. Physical: 1/2" (13 mm) diameter, 2" length

2. Electrical: Voltage Input: 8-11 volts
Current Drain: 0.5mA
Programming: Separate No. 4201 Programmer needed.

3. Usage: Gap: 7/8" max. (22 mm)

4192CP IONIZATION DETECTOR

1. Physical Base Diameter: 5" (127mm) Cover Height: 3" (76mm) Cover Diameter: 3-1/8" (80mm)
2. Electrical Voltage Input: 7-11 volts
Current Drain: Less than 320 uA (standby) 230-400 uA (active)

4192SD PHOTOELECTRIC SMOKE DETECTOR

1. Physical Base Diameter: 5" (127mm) Cover Height: 3" (76mm) Cover Diameter: 3-3/8" (80mm)
2. Electrical Voltage Input: 7-11 volts
Current Drain: Less than 320 uA (standby) 230-400 uA (active)

4192SDT PHOTOELECTRIC SMOKE DETECTOR W/BUILT-IN 135°F/57°C HEAT DETECTOR

1. Physical Base Diameter: 5" (127mm) Cover Height: 3" (76mm) Cover Diameter: 3-1/8" (80mm)
2. Electrical Voltage Input: 7-11 volts
Current Drain: Less than 320 uA (standby) 400 uA (active)

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SECTION XVII
SUMMARY OF CONNECTIONS
&
PROGRAMMING DEFAULTS

— A. SUMMARY OF CONNECTIONS —

TABLE 9. AUXILIARY DEVICE CURRENT DRAW WORKSHEET

VISTA DEVICE	CURRENT DRAW X	NUMBER OF UNITS =	TOTAL CURRENT
REMOTE CONSOLES 4137 5137	 60 mA 150 mA		
KEYSWITCH 4146	 20 mA		
GROUND START 675	 50 mA		
RF RECEIVERS 4280 or 4280-8	 40 mA		
		TOTAL *	

*4130XM/5130XM = 280 mA Max. Aux. current (200 mA Max. for UL Installations)

*4140XM = 700 mA Max. Aux. current (400 mA for UL Installations)

CAUTION: If total current draw is above the maximum auxiliary current available, a 1350 power pack must be used to power up to 7 additional remote consoles. If only one console is being used, power additional devices from a separate 12VDC power source (i.e. 488-12).

NOTE: If using hard-wire devices such as PIRs, refer to the specifications for that particular unit's current draw.

TABLE 10. POLLING LOOP CURRENT DRAW WORKSHEET

RPM DEVICE	CURRENT DRAW X	NUMBER OF UNITS =	TOTAL CURRENT
4139	1 mA		
4190	1 mA (LOW) 2 mA (HIGH)		
4191	1 mA		
4192	1 mA		
4194	1 mA		
4196	1 mA		
4208	16 mA		
4275	1 mA		
4280	40 mA		
4280-8	40 mA		
		TOTAL *	

* If the total current draw exceeds 64 mA, a 4197 Loop Extender module must be used.
* If using two 4280s or 4280-8s, you can power one of them from auxiliary power instead of using a 4197 loop extender module. See Wireless Expansion for proper connections.

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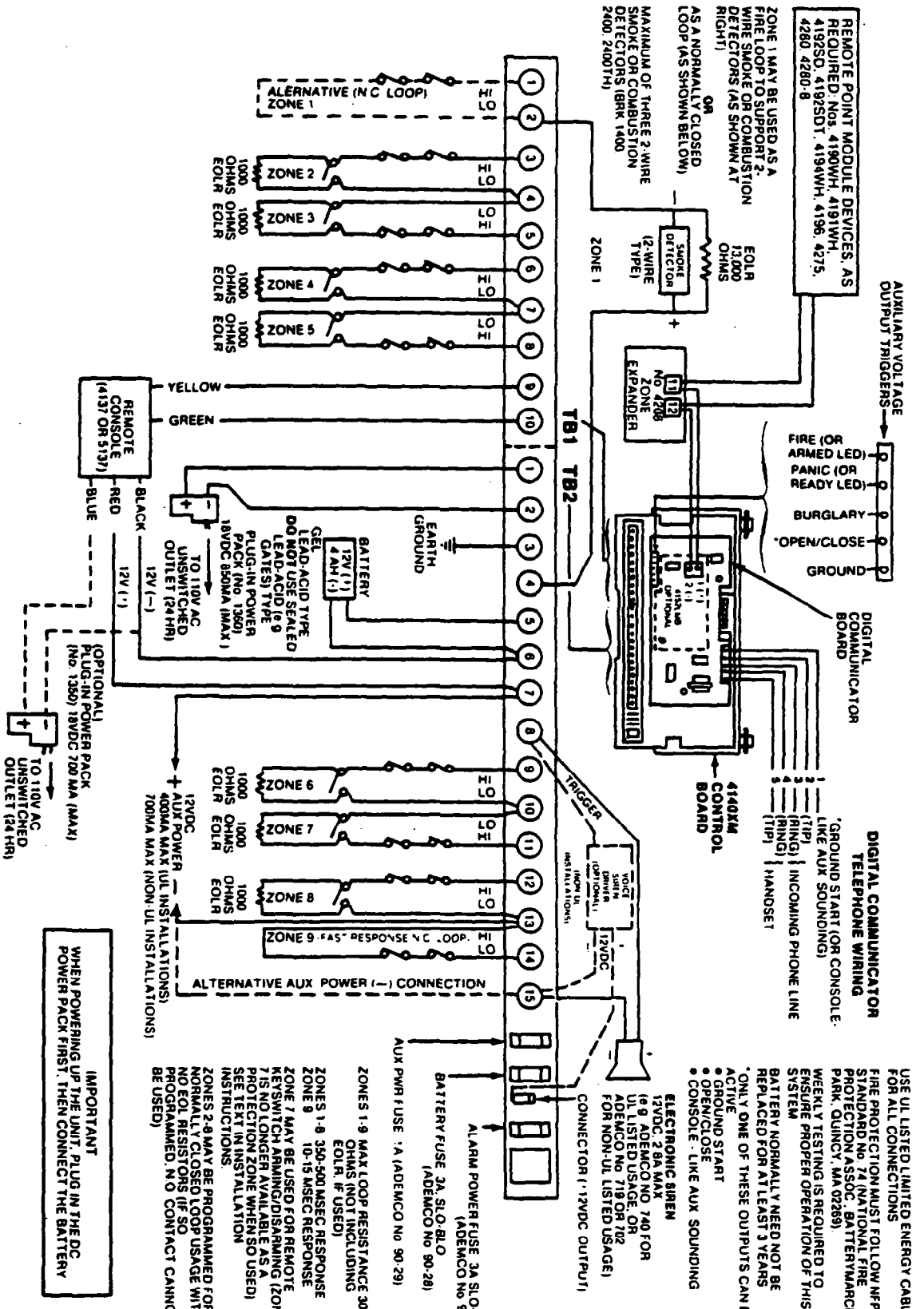
REMOTE POINT MODULE DEVICES, AS REQUIRED. Nos. 4190WH, 4191WH, 4192SD, 4192SDT, 4194WH, 4196, 4275, 4280, 4280-8
ZONE 1 MAY BE USED AS A FIRE LOOP TO SUPPORT 2-WIRE SMOKE OR COMBUSTION DETECTORS (AS SHOWN AT RIGHT)
OR
AS A NORMALLY CLOSED LOOP (AS SHOWN BELOW)
MAXIMUM OF THREE 2-WIRE SMOKE OR COMBUSTION DETECTORS (BRK 1400, 2400, 2400TH)
SMOKE DETECTOR (2-WIRE TYPE)
EOLR 13,000 OHMS
ZONE 1
AUXILIARY VOLTAGE OUTPUT TRIGGERS
FIRE (OR ARMED LED)
PANIC (OR READY LED)
BURGLARY
*OPEN/CLOSE
GROUND
DIGITAL COMMUNICATOR BOARD
DIGITAL COMMUNICATOR TELEPHONE WIRING
1 — (TIP)
2 — (RING)
3 — (RING)
4 — (TIP)
5 — HANDSET
INCOMING PHONE LINE
*GROUND START (OR CONSOLE-LIKE AUX SOUNDING)
4140XM CONTROL BOARD
TB1 TB2
ALTERNATIVE (N C LOOP) ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
1000 OHMS EOLR
YELLOW
GREEN
REMOTE CONSOLE (4137 OR 5137)
BLUE
RED
BLACK
12V (+)
12V (−)
BATTERY 12V (+) 4 AH (−)
GEL LEAD-ACID TYPE DO NOT USE SEALED LEAD-ACID (e g GATES) TYPE
EARTH GROUND
PLUG-IN POWER PACK (No 1360) 18VDC 850MA (MAX)
TO 110V AC UNSWITCHED OUTLET (24 HR)
(OPTIONAL) PLUG-IN POWER PACK (No. 1360) 18VDC 700 MA (MAX)
TO 110V AC UNSWITCHED OUTLET (24 HR)
TRIGGER
VOICE SYNTHESIZER (OPTIONAL) (NON UL INSTALLATIONS)
12VDC
ZONE 6
ZONE 7
ZONE 8
ZONE 9 "FAST" RESPONSE N C LOOP
12VDC + AUX POWER 400MA MAX (UL INSTALLATIONS) 700MA MAX (NON-UL INSTALLATIONS)
ALTERNATIVE AUX POWER (−) CONNECTION
USE UL LISTED LIMITED ENERGY CABLE FOR ALL CONNECTIONS
FIRE PROTECTION MUST FOLLOW NFPA STANDARD No. 74 (NATIONAL FIRE PROTECTION ASSOC., BATTERYMARCH PARK, QUINCY, MA 02269)
WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM
BATTERY NORMALLY NEED NOT BE REPLACED FOR AT LEAST 3 YEARS
*ONLY ONE OF THESE OUTPUTS CAN BE ACTIVE
• GROUND START
• OPEN/CLOSE
• CONSOLE - LIKE AUX SOUNDING
ELECTRONIC SIREN 12VDC, 2 8A MAX (# 9 ADEMCO NO 740 FOR UL LISTED USAGE, OR ADEMCO No 719 OR 782 FOR NON-UL LISTED USAGE)
CONNECTOR (+ 12VDC OUTPUT)
ALARM POWER FUSE 3A SLO-BLO (ADEMCO No 90-28)
BATTERY FUSE 3A SLO-BLO (ADEMCO No 90-28)
AUX PWR FUSE 1A (ADEMCO No 90-29)
ZONES 1-9 MAX LOOP RESISTANCE 300 OHMS (NOT INCLUDING EOLR, IF USED)
ZONES 1-8 350-500 MSEC RESPONSE
ZONE 9 10-15 MSEC RESPONSE
ZONE 7 MAY BE USED FOR REMOTE KEYSWITCH ARMING/DISARMING (ZONE 7 IS NO LONGER AVAILABLE AS A PROTECTION ZONE WHEN SO USED) SEE TEXT IN INSTALLATION INSTRUCTIONS
ZONES 2-8 MAY BE PROGRAMMED FOR NORMALLY CLOSED LOOP USAGE WITH NO EOL RESISTORS (IF SO PROGRAMMED, N O CONTACT CANNOT BE USED)
IMPORTANT
WHEN POWERING UP THE UNIT, PLUG IN THE DC POWER PACK FIRST, THEN CONNECT THE BATTERY

4140XM SUMMARY OF CONNECTIONS

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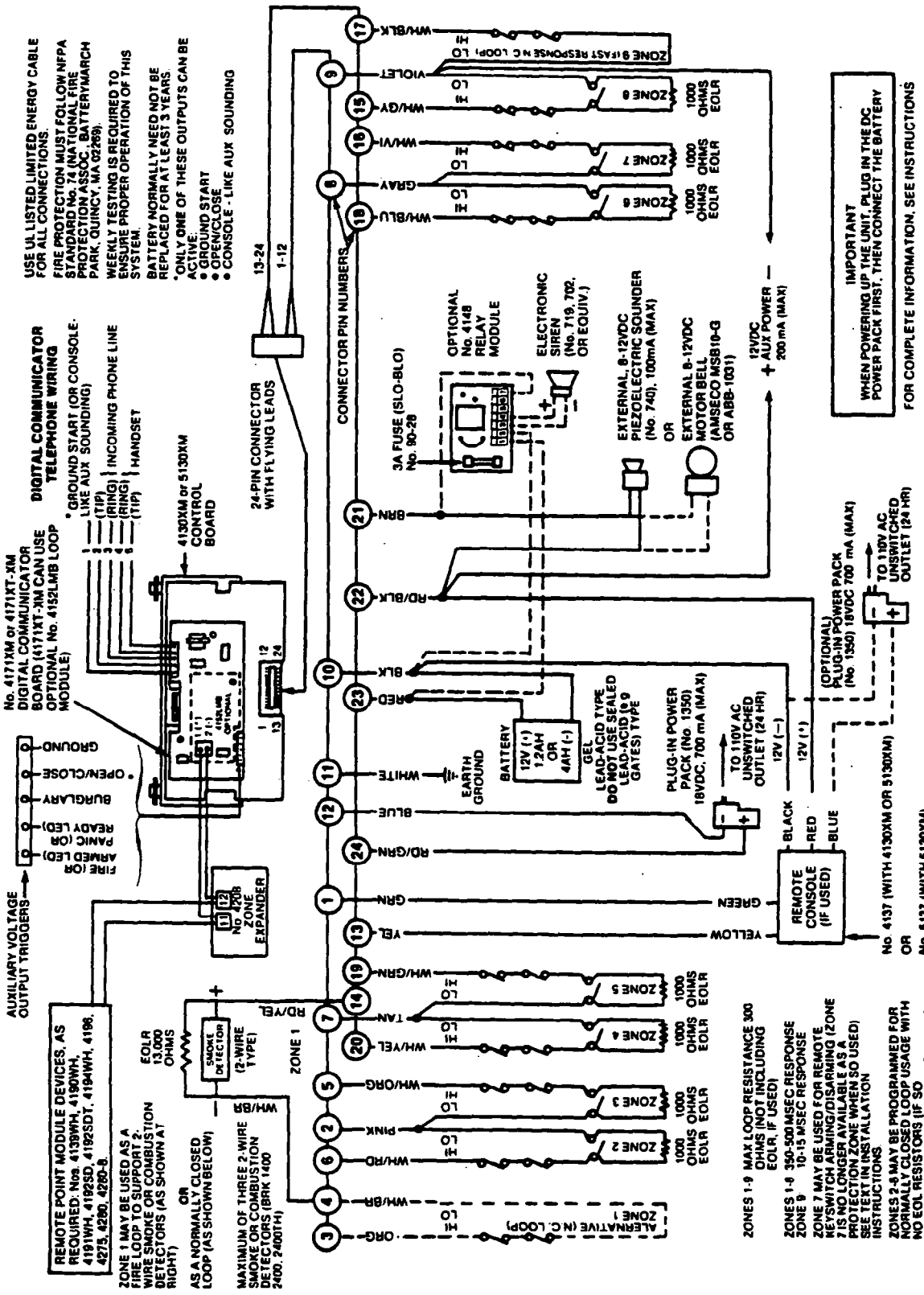
USE UL LISTED, LIMITED ENERGY CABLE FOR ALL CONNECTIONS.
FIRE PROTECTION MUST FOLLOW NFPA STANDARD No. 74 (NATIONAL FIRE PROTECTION ASSOC., BATTERYMARCH PARK, QUINCY, MA 02269).
WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM.
BATTERY NORMALLY NEED NOT BE REPLACED FOR AT LEAST 3 YEARS.
*ONLY ONE OF THESE OUTPUTS CAN BE ACTIVE:
• GROUND START
• OPEN/CLOSE
• CONSOLE - LIKE AUX SOUNDING
DIGITAL COMMUNICATOR TELEPHONE WIRING
* GROUND START (OR CONSOLE-LIKE AUX SOUNDING)
INCOMING PHONE LINE
HANDSET
(TIP)
(RING)
(RING)
(TIP)
No. 4171XM or 4171XT-XM DIGITAL COMMUNICATOR BOARD (4171XT-XM CAN USE OPTIONAL No. 4152LMB LOOP MODULE)
4130XM or 5130XM CONTROL BOARD
24-PIN CONNECTOR WITH FLYING LEADS
13-24
1-12
CONNECTOR PIN NUMBERS
WH/BLK
VIOLET
WH/GY
WH/VI
GRAY
WH/BLU
ZONE 9 (FAST RESPONSE N.C. LOOP) LO
ZONE 8
ZONE 7
ZONE 6
1000 OHMS EOLR
3A FUSE (SLO-BLO) No. 90-28
OPTIONAL No. 4148 RELAY MODULE
ELECTRONIC SIREN (No. 719, 702, OR EQUIV.)
EXTERNAL, 8-12VDC PIEZOELECTRIC SOUNDER (No. 740), 100mA (MAX)
OR
EXTERNAL 8-12VDC MOTOR BELL (AMSECO MSB10-G OR ABB-1031)
12VDC AUX POWER 200 mA (MAX)
IMPORTANT
WHEN POWERING UP THE UNIT, PLUG IN THE DC POWER PACK FIRST, THEN CONNECT THE BATTERY
FOR COMPLETE INFORMATION, SEE INSTRUCTIONS
BRN
RD/BLK
BLK
RED
WHITE
BLUE
RD/GRN
GRN
YEL
EARTH GROUND
BATTERY 12V (+) 1.2AH OR 4AH (-)
GEL LEAD-ACID TYPE DO NOT USE SEALED LEAD-ACID (e.g. GATES) TYPE
PLUG-IN POWER PACK (No. 1350) 18VDC, 700 mA (MAX)
TO 110V AC UNSWITCHED OUTLET (24 HR)
12V (+)
12V (—)
(OPTIONAL) PLUG-IN POWER PACK (No. 1350) 18VDC 700 mA (MAX)
TO 110V AC UNSWITCHED OUTLET (24 HR)
BLACK
RED
BLUE
REMOTE CONSOLE (IF USED)
GREEN
YELLOW
No. 4137 (WITH 4130XM OR 5130XM)
OR
No. 5137 (WITH 5130XM)
AUXILIARY VOLTAGE OUTPUT TRIGGERS
GROUND
• OPEN/CLOSE
BURGLARY
PANIC (OR READY LED)
FIRE (OR ARMED LED)
No 4208 ZONE EXPANDER
REMOTE POINT MODULE DEVICES, AS REQUIRED: Nos. 4139WH, 4190WH, 4191WH, 4192SD, 4192SDT, 4194WH, 4198, 4275, 4280, 4280-8.
ZONE 1 MAY BE USED AS A FIRE LOOP TO SUPPORT 2-WIRE SMOKE OR COMBUSTION DETECTORS (AS SHOWN AT RIGHT)
OR
AS A NORMALLY CLOSED LOOP (AS SHOWN BELOW)
EOLR 13,000 OHMS
SMOKE DETECTION
(2-WIRE TYPE)
MAXIMUM OF THREE 2-WIRE SMOKE OR COMBUSTION DETECTORS (BRK 1400, 2400, 2401TH)
ZONE 1
RD/YEL
WH/BR
WH/GRN
TAN
WH/YEL
WH/ORG
PINK
WH/RD
WH/BR
ORG
ZONE 5
ZONE 4
ZONE 3
ZONE 2
ALTERNATIVE (N.C. LOOP) ZONE 1
1000 OHMS EOLR
ZONES 1-9 MAX LOOP RESISTANCE 300 OHMS (NOT INCLUDING EOLR, IF USED)
ZONES 1-8 350-500 MSEC RESPONSE
ZONE 9 10-15 MSEC RESPONSE
ZONE 7 MAY BE USED FOR REMOTE KEYSWITCH ARMING/DISARMING (ZONE 7 IS NO LONGER AVAILABLE AS A PROTECTION ZONE WHEN SO USED) SEE TEXT IN INSTALLATION INSTRUCTIONS
ZONES 2-8 MAY BE PROGRAMMED FOR NORMALLY CLOSED LOOP USAGE WITH NO EOLR RESISTORS (IF SO PROGRAMMED, N.O. CONTACT CANNOT BE USED).

4130XM/5130XM SUMMARY OF CONNECTIONS

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— B. PROGRAMMING DEFAULT VALUES —

The system is shipped with a set of pre-programmed values designed to meet the needs of many installations. These values are already in place and no special procedure is required to select them. These values can be altered by the installer to suit the needs of a particular installation, if desired.

Pre-programmed values serve two purposes:

They can reduce programming time on the part of the installer if many of the pre-programmed values are accepted.

They will permit an installer who is unfamiliar with this product to quickly set up the system for bench test so that familiarity with the operation of the system can be achieved in a shorter period of time.

Values for the communicator have also been included in the standard pre-programming to assist the installer (see Tables 12, 13, 14 and 15 for other sets of pre-programmed values that can be selected by the installer when using specific communication formats).

The standard defaults can be loaded into the system at any time, by keying *97. These values are defined in Table 11 that follows:

TABLE 11. STANDARD PRE-PROGRAMMED DEFAULTS

FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*00	INSTALLER CODE	[4][1][4][0] or [4][1][3][0] or [5][1][3][0] depending on Control
*01	MASTER SECURITY CODE	[1][2][3][4]
*02	ASSIGN RESPONSE TYPE FOR ZONES 1-8	Z1 [0][9] Fire Z2 [0][3] Perimeter, Burglary Z3 [0][4] Interior, Follower, Burglary Z4 [0][5] Trouble by Day/Alarm by Night, Burg. Z5 [1][0] Interior, Delay, Burglary Z6 [0][7] 24-hour audible Z7 [0][8] 24-hour Aux Z8 [0][1] Entry/Exit (Delay #1), Burglary
*03	ASSIGN RESPONSE TYPE FOR ZONES 9-16	Z9 [0][3] Perimeter, Burglary Z10[0][0] Z11[0][0] Z12[0][0] Z13[0][0] Z14[0][0] Z15[0][0] Z16[0][0]
*04	ASSIGN RESPONSE TYPE FOR ZONES 17-24	Z17[0][0] Z18[0][0] Z19[0][0] Z20[0][0] Z21[0][0] Z22[0][0] Z23[0][0] Z24[0][0]
*05	ASSIGN RESPONSE TYPE FOR VARIOUS KEYPAD PANICS AND ZONE EXPANDER WIRING SUPERVISION	1 [0][0] Z25 2 [0][0] Z26 3 [0][0] Z27 4 [0][0] 5 [0][5] Short in Wiring to Zone Expander (displays "97") 6 [0][0] 1 and * Panic (displays "95") 7 [0][0] 3 and # Panic (displays "96") 8 [0][6] * and # Panic (displays "99")

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*06	DESIGNATE RIGHT ZONE USAGE (10-16)	10 11 12 13 14 15 16 [0] [0] [0] [0] [0] [0] [0] (none)
*07	DESIGNATE RIGHT ZONE USAGE (17-24)	17 18 19 20 21 22 23 24 [0] [0] [0][0] [0] [0] [0] [0] (none)
*08	DESIGNATE RIGHT ZONE USAGE (25-32)	25 26 27 28 29 30 31 32 [0] [0] [0][0] [0] [0] [0] [0] (none)
*09	ENTRY DELAY #1	[0][2] (30 seconds)
*10	EXIT DELAY #1	[0][3] (45 seconds)
*11	ENTRY DELAY #2	[0][6] (90 seconds)
*12	EXIT DELAY #2	[0][8] (120 seconds)
*13	ALARM SOUNDER DURATION	[0][4] (8 minutes)
*14	NOT USED	[0] (must be zero)
*15	KEYSWITCH ARM/DISARM ENABLE	[0] (Disable)
*16	CONFIRMATION OF ARMING DING	[0] (Disable)
*17	AC POWER LOSS SOUNDING	[0] (Disable)
*18	AC POWER LOSS ALARM	[0] (No alarm)
*19	NOT USED	[0]
*20	NOT USED	[0]
*21	DISABLE FIRE TIME-OUT	[0] (No)
*22	NOT USED	[0]
*23	MULTIPLE ALARMS	[1] (Yes)
*24	TAMPER DETECTION DISABLE (ZONES 10-64)	[0] (Enable)
*25	DURESS REPORT DISABLE (ADEMCO HIGH SPEED)	[0] (Enable)
*26	NOT USED	[0]
*27	TEST REPORT INTERVAL	[2] (24 hours)
*28	POWER UP IN PREVIOUS STATE	[1] (Yes)
*29	QUICK ARM	[1] (Enabled)

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*30	TOUCH-TONE OR ROTARY DIAL	[1] (Touch-Tone)
*31	PABX ACCESS CODE	No Entry
*32	PRIMARY SUBSCRIBER ACCT. No.	[1][5] [1][5] [1][5] [1][5]
*33	PRIMARY PHONE No.	No Entry
*34	SECONDARY PHONE No.	No Entry
*35	CS DOWNLOAD PHONE No.	No Entry
*36	CS ID No.	[1][5] [1][5] [1][5] [1][5] [1][5] [1][5] [1][5] [1][5]
*37	DOWNLOAD COMMAND ENABLES	1[1] Dialer Shutdown enabled 2[1] System Shutdown enabled 3[1] Not Used 4[1] Remote Bypass enabled 5[1] Remote Disarm enabled 6[1] Remote Arm enabled 7[1] Upload Program enabled 8[1] Download Program enabled
*38	INHIBIT BYPASS OF ONE ZONE (1-31)	[0][0] (All non-fire zones bypassable)
*39	OPEN/CLOSE REPORTING ENABLE BY USER CODE	[0][0][0][0][0][0][0][0] (disabled for Users 9-16)
*40	REPROGRAM or DOWNLOAD ATTEMPT REPORT	[0][0] (No code reported)
*41	EOLR DISABLE (Zones 2-8)	[1] (End-of-Line Resistor supervision not required)
*42	DIAL TONE PAUSE	[0] (5 seconds)
*43	DIAL TONE DETECTION	[1] (Dial Tone Detection Enabled)
*44	RING DETECTION COUNT	[0][0] (Ring detection disabled)
*45	PRIMARY ACK WAIT	[0] (30 seconds)
*46	PRIMARY TRANSMISSION FORMAT	[0] (Ademco Low Speed)
*47	SECONDARY ACK WAIT	[0] (30 seconds)
*48	SECONDARY TRANSMISSION FORMAT	[0] (Ademco Low Speed)
*49	SINGLE MESSAGE TRANSMISSION WITH CHECKSUM VERIFICATION	[0] (No)
*50	SESCOA/RADIONICS SELECTION	[0] Radionics with 0-9, B-F reporting.

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*51	DUAL REPORTING	[0] (No)
*52	OPEN/CLOSE REPORTING ENABLE BY USER CODE	1 2 3 4 5 6 7 8 [1][0][0][0][0][0][0][0] (disabled for Users 2-8)
*53	4+2 ZONE EXPANDED FORMAT SELECTION	[0] (Not selected)
*54	4+2 ZONE STANDARD FORMAT SELECTION	[0] (Not selected)
*55	ALARM REPORT	[0] (Standard report)
*56	RESTORE REPORT	[1] (Expanded)
*57	BYPASS REPORT	[0] (Standard report)
*58	TROUBLE REPORT	[0] (Standard report)
*59	OPEN/CLOSE REPORT	[0] (Standard report)
*60	LOW BATTERY, AC LOSS AND TEST REPORT	[0] (Standard report)
*61	CHANNEL ASSIGNED TO EACH ZONE	Z1 [0][0] Zeroes for zones 1 - 8 (no code reported) Z2 [0][0] Z3 [0][0] Z4 [0][0] Z5 [0][0] Z6 [0][0] Z7 [0][0] Z8 [0][0]
*62	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	Z9 [0][0] Zeroes for zones 9-16 (no code reported) Z10 [0][0] Z11 [0][0] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0] Z16 [0][0]
*63	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	Z17 [0][0] Zeroes for zones 17-24 (no code reported) Z18 [0][0] Z19 [0][0] Z20 [0][0] Z21 [0][0] Z22 [0][0] Z23 [0][0] Z24 [0][0]
*64	CHANNELS ASSIGNED TO ZONES 25-27, DURESS AND VARIOUS KEYPAD PANICS	1 [0][0] Z25 All zeroes in 8 locations (same as Address *61) 2 [0][0] Z26 3 [0][0] Z27 4 [0][0] Duress 5 [0][0] Short on Wiring to Zone Expander (displays 97) 6 [0][0] 1 & * Panic (displays 95) 7 [0][0] 3 & # Panic (displays 96) 8 [0][0] * & # Panic (displays 99)

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*65	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL	Z1 [0][0] Zeroes for channels 1-8 (no code reported) Z2 [0][0] Z3 [0][0] Z4 [0][0] Z5 [0][0] Z6 [0][0] Z7 [0][0] Z8 [0][0]
*66	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL (CONT'D)	Z9 [0][0] Zeroes for channels 9-15 (no code reported) Z10 [0][0] Z11 [0][0] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0]
*67	NON-ALARM CODES	[0][0] AC LOSS [0][0] AC LOSS 2nd DIGIT [0][0] TROUBLE [0][0] TROUBLE RESTORE [0][0] BYPASS [0][0] BYPASS RESTORE [0][0] RESTORE CODE FOR ALARM, AC LOSS, LOW BATTERY
*68	NON-ALARM CODES (CONT'D)	[0][0] OPEN [0][0] CLOSE [0][0] LOW BATTERY [0][0] LOW BATTERY 2nd DIGIT [0][0] TEST [0][0] POWER UP [0][0] NOT USED [0][0] CANCEL CODE
*69	ZONE TYPES 1-4 RESTORE REPORT ENABLE	[1][1][1][1] Enabled (all)
*70	ZONE TYPES 5-8 RESTORE REPORT ENABLE	[1][0][0][0] Zone Type 5 enabled, all others disabled
*71	ZONE TYPES 9 & 10 RESTORE REPORT ENABLE	[1][1] Enabled (all)
*72	4+2 EXPANDED FORMAT ZONES 1-8 EVENT DIGIT (1st digit)	1 [0][0] AL Zeroes for zones 1-8 (no codes reported) 2 [0][0] TR 3 [0][0] BY 4 [0][0] AL RE 5 [0][0] TR RE 6 [0][0] BY RE
*73	4+2 EXPANDED FORMAT ZONES 9-16 EVENT DIGIT (1st digit)	1 [0][0] ALZeroes for zones 9-16 (no codes reported) 2 [0][0] TR 3 [0][0] BY 4 [0][0] AL RE 5 [0][0] TR RE 6 [0][0] BY RE

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*74	4+2 EXPANDED FORMAT ZONES 17-24 EVENT DIGIT (1st digit)	1 [0][0] AL Zeroes for zones 17-24 (no codes reported) 2 [0][0] TR 3 [0][0] BY 4 [0][0] AL RE 5 [0][0] TR RE 6 [0][0] BY RE
*75	4+2 EXPANDED FORMAT ZONES 25-27, KEYPAD EXPANDER WIRING SUPERVISORY EVENT DIGIT	1 [0][0] AL 2 [0][0] TR 3 [0][0] BY 4 [0][0] AL RE panics and for zone expander 5 [0][0] TR RE wiring supervisory (no 6 [0][0] BY RE codes reported)
*76	4+2 EXPANDED FORMAT ZONES 1-8 ID DIGIT (2nd digit)	Z1 [0][0] Zeroes for zones 1-8 (no codes reported) Z2 [0][0] Z3 [0][0] Z4 [0][0] Z5 [0][0] Z6 [0][0] Z7 [0][0] Z8 [0][0]
*77	4+2 EXPANDED FORMAT ZONES 9-16 ID DIGIT (2nd digit)	Z9 [0][0] Zeroes for zones 9-16 (no codes reported) Z10 [0][0] Z11 [0][0] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0] Z16 [0][0]
*78	4+2 EXPANDED FORMAT ZONES 17-24 ID DIGIT (2nd digit)	Z17 [0][0] Zeroes for zones 17-24 (no codes reported) Z18 [0][0] Z19 [0][0] Z20 [0][0] Z21 [0][0] Z22 [0][0] Z23 [0][0] Z24 [0][0]
*79	4+2 EXPANDED FORMAT ZONES 25-27, KEYPAD PANICS/ZONE EXPANDER WIRING SUPERVISORY ID DIGIT (2nd digit)	[0][0] Z25 [0][0] Z26 [0][0] Z27 [0][0] [0][0] Short in Wiring to Zone Expander [0][0] 1 & * Panic [0][0] 3 & # Panic [0][0] * & # Panic
*80	4+2 EXPANDED FORMAT NON-ALARM CODES	[0][0] Zeroes (no codes reported) in all 10 locations [0][0] [0][0] [0][0] [0][0] [0][0] [0][0] [0][0] [0][0] [0][0]

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*81	4+2 EXPANDED FORMAT NON-ALARM CODES (CONT'D)	[0][0] Zeroes (no codes reported) in all 8 locations [0][0] [0][0] [0][0] [0][0] [0][0] [0][0] [0][0]
*82	ALARM COUNT	[0][3] (Swinger Suppression)
*83	TEST REPORT INITIATION TIME	[1][2] (12 hours after program mode exit)
*84	ADEMCO HIGH SPEED REPORTING ON 800/WATS LINES	[0] (No)
*85	NOT USED	[0]
*86	ZONE EXPANDER TYPE SELECTION	[0]
*87	ENTRY WARNING	[1] (continuous beeps)
*88	BURGLARY ALARM COMMUNICATION DELAY	[0] (no delay)
*89	NOT USED	[0]
*90	SECONDARY SUBSCRIBER ACCT. No.	[1][5][1][5][1][5][1][5]

NOTE: The following fields are accessed by initially keying *94 while in the programming mode. Although numbered from 00 to 49, they are not the same fields as 00 to 49 listed previously, and are identified in this manual as fields 1*00 to 1*49 where the leading "1" is not keyed.

FIELD	FUNCTION	PRE-PROGRAMMED VALUE
1*00	ENABLE OPEN/ CLOSING FOR USERS 17-22	Users: 17 18 19 20 21 22 [0] [0] [0] [0] [0] [0] (Disable)
1*01	ASSIGN RESPONSE TYPE FOR ZONES 28-32	[0][0] Z28 [0][0] Z29 [0][0] Z30 [0][0] Z31 [0][0] Z32
1*02	ASSIGN RESPONSE TYPE FOR ZONES 33-40	[0][0] Z33 [0][0] Z34 [0][0] Z35 [0][0] Z36 [0][0] Z37 [0][0] Z38 [0][0] Z39 [0][0] Z40

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
1*03	ASSIGN RESPONSE TYPE FOR ZONES 41-48	[0][0] Z41 [0][0] Z42 [0][0] Z43 [0][0] Z44 [0][0] Z45 [0][0] Z46 [0][0] Z47 [0][0] Z48
1*04	ASSIGN RESPONSE TYPE FOR ZONES 49-56	[0][0] Z49 [0][0] Z50 [0][0] Z51 [0][0] Z52 [0][0] Z53 [0][0] Z54 [0][0] Z55 [0][0] Z56
1*05	ASSIGN RESPONSE TYPE FOR ZONES 57-64	[0][0] Z57 [0][0] Z58 [0][0] Z59 [0][0] Z60 [0][0] Z61 [0][0] Z62 [0][0] Z63 [0][0] Z64
1*06	NOT USED	
1*07	NOT USED	
1*08	ASSIGN RESPONSE TYPE FOR 4280 RECEIVER FAULT	[0][0] [0][0] [0][0] [0][0] [0][0] [0][0] [0][0] [0][0] 88 (2nd 4280 not receiving any transmitter signals)
1*09	ASSIGN RESPONSE TYPES FOR 4280 RECEIVER FAULTS	[0][0] 89 (2nd 4280 cover tamper or connection lost with Control) [0][0] 90 (1st 4280 not receiving any transmitter signals) [0][0] 91 (1st 4280 cover tamper or connection lost with Control)
1*10	DESIGNATE RIGHT ZONE USAGE (33-40)	33 34 35 36 37 38 39 40 [0] [0] [0] [0] [0] [0] [0] [0]
1*11	DESIGNATE RIGHT ZONE USAGE (41-48)	41 42 43 44 45 46 47 48 [0] [0] [0] [0] [0] [0] [0] [0]
1*12	DESIGNATE RIGHT ZONE USAGE (49-56)	49 50 51 52 53 54 55 56 [0] [0] [0] [0] [0] [0] [0] [0]
1*13	DESIGNATE RIGHT ZONE USAGE (57-64)	57 58 59 60 61 62 63 64 [0] [0] [0] [0] [0] [0] [0] [0]

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
1*14	NOT USED	
1*15	NOT USED	
1*16	NOT USED	
1*17	NOT USED	
1*18	SELECTION OF WIRELESS FOR	1 2 3 4 5 6 7 8 [0][0][0][0][0][0][0][0] ZONES 1-8
1*19	SELECTION OF WIRELESS FOR	9 10 11 12 13 14 15 16 [0] [0] [0] [0] [0] [0] [0] [0] ZONES 9-16
1*20	SELECTION OF WIRELESS FOR	17 18 19 20 21 22 23 24 [0] [0] [0] [0] [0] [0] [0] [0] ZONE 17-24
1*21	SELECTION OF WIRELESS FOR	25 26 27 28 29 30 31 32 [0] [0] [0] [0] [0] [0] [0] [0] ZONES 25-32
1*22	SELECTION OF WIRELESS FOR	33 34 35 36 37 38 39 40 [0] [0] [0] [0] [0] [0] [0] [0] ZONES 33-40
1*23	SELECTION OF WIRELESS FOR	41 42 43 44 45 46 47 48 [0] [0] [0] [0] [0] [0] [0] [0] ZONES 41-48
1*24	SELECTION OF WIRELESS FOR	49 50 51 52 53 54 55 56 [0] [0] [0] [0] [0] [0] [0] [0] ZONES 49-56
1*25	SELECTION OF WIRELESS FOR ZONES 57-63	57 58 59 60 61 62 63 [0] [0] [0] [0] [0] [0] [0]
1*26	FIRST 4280 RF EXPANDER SELECT	[0] (not selected)
1*27	SECOND 4280 RF EXPANDER SELECT	[0] (not selected)
1*28	RF TRANSMITTER LOW BATTERY ANNUNCIATION ENABLE	[0] (Audible beep only in disarmed state)
1*29	RF TRANSMITTER LOW BATTERY REPORT	[1] (enable)
1*30	4280 SUPERVISION CHECK-IN MONITORING INTERVAL	[0][6] (12 hours)
1*31	RF TRANSMITTER CHECK-IN MONITORING INTERVAL	[1][2] (24 hours)
1*32	CONTACT ID ENABLE	[0]
1*33	TELEPHONE ROTARY BACK-UP ENABLE	[0]

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
1*34	COMMUNICATOR SPLIT REPORT SELECTION	[0] (Split reporting disabled)
1*35	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	[0][0] Z28 [0][0] Z29 Zeroes for zones 28-32 [0][0] Z30 (no code reported) [0][0] Z31 [0][0] Z32
1*36	CHANNEL ASSIGNED TO EACH ZONE (CON'D)	[0][0] Z33 [0][0] Z34 [0][0] Z35 Zeroes for zones 33-40 [0][0] Z36 (no code reported) [0][0] Z37 [0][0] Z38 [0][0] Z39 [0][0] Z40
1*37	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	[0][0] Z41 [0][0] Z42 [0][0] Z43 Zeroes for zones 41-48 [0][0] Z44 (no code reported) [0][0] Z45 [0][0] Z46 [0][0] Z47 [0][0] Z48
1*38	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	[0][0] Z49 [0][0] Z50 [0][0] Z51 Zeroes for zones 49-56 [0][0] Z52 (no code reported) [0][0] Z53 [0][0] Z54 [0][0] Z55 [0][0] Z56
1*39	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	[0][0] Z57 [0][0] Z59 Zeroes for zones 57-64 [0][0] Z60 (no code reported) [0][0] Z61 [0][0] Z62 [0][0] Z63 [0][0] Z64
1*40	NOT USED	
1*41	NOT USED	
1*42	CHANNEL ASSIGNED TO 2nd RECEIVER FAULT	[0][0] [0][0] [0][0] Not used, [0][0] zeroes [0][0] entered [0][0] [0][0] [0][0] 2nd 4280 receiver fault (disabled)

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
1*43	CHANNEL ASSIGNED TO RF RECEIVER FAULTS	[0][0] 2nd 4280 no transmitter check-in response (disabled). [0][0] 1st 4280 Receiver supervision fault (disabled). [0][0] 1st 4280 no transmitter check-in response (disabled).
1*44	WIRELESS KEYPAD TAMPER DETECT ENABLE	[0] (disabled)
1*45	ENABLE CONSOLE ANNUNCIATION DURING EXIT DELAY	[0] (no beeps)
1*46	AUXILIARY OUTPUT FUNCTION ENABLE	[0] (Ground start output enabled)
1*47	ENABLE CHIME ANNUNCIATION ON EXTERNAL ALARM SOUNDER	[0] (disabled)
1*48	WIRELESS KEYPAD ENABLE	[0] (enabled)
1*49	DISABLE TROUBLE SOUNDER FOR RF SUPERVISION	[0] (not used)
1*50	BABYSITTER CODE ENABLE	[0] (disabled)

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TABLE 12. STANDARD LOW SPEED 3+1/4+1 (9 ZONES) PRE-PROGRAMMING

To select the pre-programmed settings for the above communication format, proceed as follows:
1. Enter the programming mode.
2. Key *94.
3. Key *80.

Values are now the same as the standard defaults (Table 11), except for the following differences:

FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*05	ASSIGN RESPONSE TYPE FOR VARIOUS KEYPAD PANICS AND ZONE EXPANDER WIRING SUPERVISION	1 [0][0] Z25 2 [0][0] Z26 3 [0][0] Z27 4 [0][0] 5 [0][5] Short in Wiring to Zone Expander (displays "97") 6 [0][0] 1 and * Panic (displays "95") 7 [0][0] 3 and # Panic (displays "96") 8 [0][6] * and # Panic (displays "99")
*37	DOWNLOAD COMMAND ENABLES	1[1] Dialer Shutdown enabled 2[1] System Shutdown enabled 3[0] Not Used 4[1] Remote Bypass enabled 5[1] Remote Disarm enabled 6[1] Remote Arm enabled 7[1] Upload Program enabled 8[1] Download Program enabled
*41	EOLR DISABLE (Zones 2-8)	[0] (End-of-Line Resistor supervision enabled)
*42	DIAL TONE PAUSE	[1] (11 seconds)
*56	RESTORE REPORT	[0] (Standard)
*61	CHANNEL ASSIGNED TO EACH ZONE	Z1 [0][1] Z2 [0][3] Z3 [0][4] Z4 [0][3] Z5 [0][3] Z6 [0][3] Z7 [0][3] Z8 [0][3]
*62	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	Z9 [0][4] Z10 [0][0] Z11 [0][0] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0] Z16 [0][0]

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*64	CHANNELS ASSIGNED TO ZONES 25-27, DURESS AND VARIOUS KEYPAD PANICS	1 [0][0] Z25 2 [0][0] Z26 3 [0][0] Z27 4 [0][2] Duress 5 [0][0] Short on Wiring to Zone Expander (displays 97) 6 [0][0] 1 & * Panic (displays 95) 7 [0][0] 3 & # Panic (displays 96) 8 [0][2] * & # Panic (displays 99)
*65	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL	Z1 [0][1] Z2 [0][2] Z3 [0][3] Z4 [0][4] Z5 [0][5] Z6 [0][6] Z7 [0][7] Z8 [0][8]
*66	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL (CONT'D)	Z9 [0][9] Z10 [1][0] Z11 [1][1] Z12 [1][2] Z13 [1][3] Z14 [1][4] Z15 [1][5]
*67	NON-ALARM CODES	[0][0] AC LOSS [0][0] AC LOSS 2nd DIGIT [0][0] TROUBLE [0][0] TROUBLE RESTORE [0][0] BYPASS [0][0] BYPASS RESTORE [0][9] RESTORE CODE FOR ALARM, AC LOSS, LOW BATTERY
*68	NON-ALARM CODES (CONT'D)	[0][0] OPEN [0][0] CLOSE [0][6] LOW BATTERY [0][6] LOW BATTERY 2nd DIGIT [0][0] TEST [0][0] POWER UP [0][0] NOT USED [0][9] CANCEL CODE
*70	ZONE TYPES 5-8 RESTORE REPORT ENABLE	[1][1][1][1] Zone Type 5-8 enabled
*83	TEST REPORT INITIATION TIME	[0][0] Instant
*88	BURGLARY ALARM COMMUNICATION DELAY	[1] (no delay)

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3+1 STANDARD REPORTING

ZONE	TYPE	REPORT CODE
1	FIRE	1
2	E/E #1	3
3	INT., FOLL.	4
4	PERIMETER	3
5	PERIMETER	3
6	PERIMETER	3
7	PERIMETER	3
8	PERIMETER	3
9	INT., DEL.	4
	RESTORE/ CANCEL	9
	DURESS	2
	* & # AUD. PANIC	2
	LOW BATTERY	8

TABLE 13. EXPANDED LOW SPEED 3+1/4+1 (9 ZONES) PRE-PROGRAMMING

To select the pre-programmed settings for the above communication format, proceed as follows:
1. Enter the programming mode.
2. Key *94.
3. Key *81.

Values are now the same as the standard defaults (Table 11), except for the following differences:

FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*55	ALARM REPORT	[1] (Expanded report)
*56	RESTORE REPORT	[1] (Expanded)
*57	BYPASS REPORT	[1] (Expanded report)
*58	TROUBLE REPORT	[1] (Expanded report)
*59	OPEN/CLOSE REPORT	[1] (Expanded report)
*60	LOW BATTERY, AC LOSS AND TEST REPORT	[1] (Expanded report)
*61	CHANNEL ASSIGNED TO EACH ZONE	Z1 [0][1] Z2 [0][2] Z3 [0][3] Z4 [0][4] Z5 [0][5] Z6 [0][6] Z7 [0][7] Z8 [0][8]
*62	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	Z9 [0][9] Z10 [0][0] Z11 [0][0] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0] Z16 [0][0]

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*64	CHANNELS ASSIGNED TO ZONES 25-27, DURESS AND VARIOUS KEYPAD PANICS	1 [0][0] Z25 2 [0][0] Z26 3 [0][0] Z27 4 [1][0] Duress 5 [0][0] Short on Wiring to Zone Expander (displays 97) 6 [0][0] 1 & * Panic (displays 95) 7 [0][0] 3 & # Panic (displays 96) 8 [1][1] * & # Panic (displays 99)
*65	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL	Z1 [0][1] Z2 [0][3] Z3 [0][3] Z4 [0][3] Z5 [0][3] Z6 [0][3] Z7 [0][3] Z8 [0][3]
*66	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL (CONT'D)	Z9 [0][3] Z10 [0][2] Z11 [0][2] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0]
*67	NON-ALARM CODES	[0][0] AC LOSS [0][0] AC LOSS 2nd DIGIT [0][0] TROUBLE [0][0] TROUBLE RESTORE [0][0] BYPASS [0][0] BYPASS RESTORE [0][9] RESTORE CODE FOR ALARM, AC LOSS, LOW BATTERY
*68	NON-ALARM CODES (CONT'D)	[0][0] OPEN [0][0] CLOSE [0][8] LOW BATTERY [0][8] LOW BATTERY 2nd DIGIT [0][0] TEST [0][0] POWER UP [0][0] NOT USED [0][9] CANCEL CODE

3+1 EXPANDED REPORTING

ZONE	TYPE	REPORT	ZONE	TYPE	REPORT
1	FIRE	1-1	8	PERIMETER	3-8
2	E/E #2	3-2	9	INT.,DELAY	3-9
3	INT., FOLL.	3-3		CANCEL	9
4	PERIMETER	3-4		RESTORE	9-1 thru 9-9
5	PERIMETER	3-5		DURESS	2-0
6	PERIMETER	3-6		* & # AUD. PANIC	2-B
7	PERIMETER	3-7		LOW BATTERY	8-8

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TABLE 14. ADEMCO HIGH SPEED (9 ZONES) PRE-PROGRAMMING

To select the pre-programmed settings for the above communication format, proceed as follows:
1. Enter the programming mode.
2. Key *94.
3. Key *82.

Values are now the same as the standard defaults (Table 11), except for the following differences:

FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*46	PRIMARY TRANSMISSION FORMAT	[2] (Ademco High Speed)
*48	SECONDARY TRANSMISSION FORMAT	[2] (Ademco High Speed)
*61	CHANNEL ASSIGNED TO EACH ZONE	Z1 [0][1] Z2 [0][2] Z3 [0][3] Z4 [0][4] Z5 [0][5] Z6 [0][6] Z7 [0][7] Z8 [0][8]
*62	CHANNEL ASSIGNED TO EACH ZONE (CONT'D)	Z9 [0][9] Z10 [0][0] Z11 [0][0] Z12 [0][0] Z13 [0][0] Z14 [0][0] Z15 [0][0] Z16 [0][0]
*64	CHANNELS ASSIGNED TO ZONES 25-27, DURESS AND VARIOUS KEYPAD PANICS	[0][0] Z25 [0][0] Z26 [0][0] Z27 [0][0] Duress [0][0] Short on Wiring to Zone Expander (displays 97) [0][0] 1 & * Panic (displays 95) [0][0] 3 & # Panic (displays 96) [1][0] * & # Panic (displays 99)
*65	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL	CH1 [0][1] CH2 [0][1] CH3 [0][1] CH4 [0][1] CH5 [0][1] CH6 [0][1] CH7 [0][1] CH8 [0][1]
*66	ALARM REPORTING CODES ASSIGNED TO EACH CHANNEL (CONT'D)	CH9 [0][1] CH10 [0][1] CH11 [0][1] CH12 [0][1] CH13 [0][1] CH14 [0][1] CH15 [0][1]

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*67	NON-ALARM CODES	[0][0] AC LOSS
		[0][0] AC LOSS 2nd DIGIT
		[0][0] TROUBLE
		[0][0] TROUBLE RESTORE
		[0][0] BYPASS
		[0][0] BYPASS RESTORE
		[0][1] RESTORE CODE FOR ALARM, AC LOSS, LOW BATTERY
*68	NON-ALARM CODES (CONT'D)	[0][0] OPEN
		[0][0] CLOSE
		[0][1] LOW BATTERY
		[0][1] LOW BATTERY 2nd DIGIT
		[0][0] TEST
		[0][0] POWER UP
		[0][0] NOT USED
		[0][1] CANCEL CODE

ADEMCO HIGH SPEED REPORTING

ZONE	TYPE	REPORT
1	FIRE	1555 5555 7
2	E/E #1	5155 5555 7
3	INT, FOLL	5515 5555 7
4	PERIMETER	5551 5555 7
5		
6	PERIMETER	5555 5155 7
7	PERIMETER	5555 5515 7
8	PERIMETER	5555 5551 7
9	INT, DEL	5155 5555 1
	DURESS	1555 5555 1
	* & # AUD. PANIC	5515 5555 1
	CANCEL	F222 2222 2
	RESTORE	3 in respective channel
	LOW BATTERY	5155 5555 6

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TABLE 15. 4+2 EXPANDED FORMAT (17 ZONES) PRE-PROGRAMMING

To select the pre-programmed settings for the above communication format, proceed as follows:
1. Enter the programming mode.
2. Key *94.
3. Key *83.

Values are now the same as the standard defaults (Table 11), except for the following differences:

FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*03	ASSIGN RESPONSE TYPE FOR ZONES 9-16	Z9 [0][3] Z10[0][3] Z11[0][3] Z12[0][3] Z13[0][3] Z14[0][3] Z15[0][3] Z16[0][3]
*04	ASSIGN RESPONSE TYPE FOR ZONES 17-24	Z17[0][3] Z18[0][0] Z19[0][0] Z20[0][0] Z21[0][0] Z22[0][0] Z23[0][0] Z24[0][0]
*05	ASSIGN RESPONSE TYPE FOR VARIOUS KEYPAD PANICS AND ZONE EXPANDER WIRING SUPERVISION	1 [0][0] Z25 2 [0][0] Z26 3 [0][0] Z27 4 [0][0] 5 [0][5] Short in Wiring to Zone Expander (displays "97") 6 [0][9] 1 and * Panic (displays "95") 7 [0][8] 3 and # Panic (displays "96") 8 [0][6] * and # Panic (displays "99")
*40	REPROGRAM/DOWNLOAD ATTEMPT REPORT	[1][4]
*53	4+2 ZONE EXPANDED FORMAT SELECTION	[1]
*72	4+2 EXPANDED FORMAT ZONES 1-8 EVENT DIGIT (1st digit)	1 [0][2] AL 2 [0][3] TR 3 [0][5] BY 4 [0][7] AL RE 5 [0][9] TR RE 6 [1][3] BY RE
*73	4+2 EXPANDED FORMAT ZONES 9-16 EVENT DIGIT (1st digit)	1 [0][1] AL 2 [0][4] TR 3 [0][6] BY 4 [0][8] AL RE 5 [1][0] TR RE 6 [1][4] BY RE

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*74	4+2 EXPANDED FORMAT ZONES 17-24 EVENT DIGIT (1st digit)	1 [0][1] AL 2 [0][3] TR 3 [0][5] BY 4 [0][7] AL RE 5 [0][9] TR RE 6 [1][3] BY RE
*75	4+2 EXPANDED FORMAT ZONES 25-27, KEYPAD EXPANDER WIRING SUPERVISORY EVENT DIGIT	1 [0][1] AL 2 [0][4] TR 3 [0][6] BY 4 [0][7] AL RE panics and for zone expander 5 [1][0] TR RE wiring supervisory 6 [1][4] BY RE
*76	4+2 EXPANDED FORMAT ZONES 1-8 ID DIGIT (2nd digit)	Z1 [0][1] Z2 [0][2] Z3 [0][3] Z4 [0][4] Z5 [0][5] Z6 [0][6] Z7 [0][7] Z8 [0][9]
*77	4+2 EXPANDED FORMAT ZONES 9-16 ID DIGIT (2nd digit)	Z9 [0][9] Z10 [0][2] Z11 [0][3] Z12 [0][4] Z13 [0][5] Z14 [0][6] Z15 [0][7] Z16 [0][8]
*78	4+2 EXPANDED FORMAT ZONES 17-24 ID DIGIT (2nd digit)	Z17 [1][0] Z18 [0][0] Z19 [0][0] Z20 [0][0] Z21 [0][0] Z22 [0][0] Z23 [0][0] Z24 [0][0]
*79	4+2 EXPANDED FORMAT ZONES 25-27, KEYPAD PANICS/ZONE EXPANDER WIRING SUPERVISORY ID DIGIT (2nd digit)	[0][0] Z25 [0][0] Z26 [0][0] Z27 [0][1] [1][1] Short in Wiring to Zone Expander [1][2] 1 & * Panic [1][3] 3 & # Panic [1][4] * & # Panic

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FIELD	FUNCTION	PRE-PROGRAMMED VALUE
*80	4+2 EXPANDED FORMAT NON-ALARM CODES	[1][2] [0][1] [1][1] [0][1] [1][5] [0][1] [1][5] [0][2] [1][5] [0][3]
*81	4+2 EXPANDED FORMAT NON-ALARM CODES (CONT'D)	[1][5] [1][5] [1][5] [0][5] [1][5] [0][6] [1][5] [0][7]

4+2 BY ZONE REPORTING

Zone	Type	Alrm	Trble	Bypass	Alrm-Restr	Trble-Restr	Bypass-Rstr
1	FIRE	21	31	51	71	91	D1
2	E/E #1	22	32	52	72	92	D2
3	INT,FOLL	23	33	53	73	93	D3
4	INT,FOLL	24	34	54	74	94	D4
5	PERIM	25	35	55	75	95	D5
6	PERIM	26	36	56	76	96	D6
7	PERIM	27	37	57	77	97	D7
8	PERIM	29	39	59	79	99	D9
9	INT,DEL	19	49	69	89	09	E9
10	TRBL,DAY/ALRM,NIGHT	12	42	62	82	02	E2
11	TRBL,DAY/ALRM,NIGHT	13	43	63	83	03	E3
12	TRBL,DAY/ALRM,NIGHT	14	44	64	84	04	E4
13	TRBL,DAY/ALRM,NIGHT	15	45	65	85	05	E5
14	PERIM	16	46	66	86	06	E6
15	PERIM	17	47	67	87	07	E7
16	PERIM	18	48	68	88	08	E8
17	PERIM	10	30	50	70	90	D0
	DURESS	11	-	-	-	-	EB
	LOOP SHORT	1B	4B	6B	7B	0B	EC
	1 & *	1C	-	6C	-	-	ED
	3 & #	1D	-	6D	-	-	EE
	* & #	1E	-	6E	-	-	

NON-ALARM CODES

OPEN	B1-BF
POWER UP	FF
CLOSE	C1-CF
AC LOSS	F5
LOW BATT	F1
AC RESTORE	F6
LOW BATT-RESTR	F2
CANCEL	F7
TEST	F3
TAMPER	EF

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"FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENT"

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- If using an indoor antenna, have a quality outdoor antenna installed.
- Reorient the receiving antenna until interference is reduced or eliminated
- Move the receiver away from the control/communicator.
- Move the antenna leads away from any wire runs for control/communicator.
- Plug the control/communicator into a different outlet so that it and the receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

The user or installer may find the following booklet prepared by the Federal Communications Commission helpful:

"Interference Handbook."

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00450-7.

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the users authority to operate the equipment.

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WARNING
THE LIMITATIONS OF THIS ALARM SYSTEM

While this system is an advanced design security system, it does not offer guaranteed protection against burglary, fire or other emergency. Any alarm system, whether commercial or residential, is subject to compromise or failure to warn for a number of reasons. For example:

- Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device.
- Intrusion detectors (e.g., passive infrared detectors), smoke detectors, and many other sensing devices will not work without power. Battery operated devices will not work without batteries, with dead batteries, or if the batteries are not put in properly. Devices powered solely by AC will not work if their AC power supply is cut off for any reason, however briefly.
- Signals sent by wireless transmitters may be blocked or reflected by metal before they reach the alarm receiver. Even if the signal path has been recently checked during a weekly test, blockage can occur if a metal object is moved into the path.
- A user may not be able to reach a panic or emergency button quickly enough.
- While smoke detectors have played a key role in reducing residential fire deaths in the United States, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires, according to data published by the Federal Emergency Management Agency. Some of the reasons smoke detectors used in conjunction with this System may not work are as follows. Smoke detectors may have been improperly installed and positioned. Smoke detectors may not sense fires that start where smoke cannot reach the detectors, such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of a residence or building. A second floor detector, for example, may not sense a first floor or basement fire. Moreover, smoke detectors have sensing limitations. No smoke detector can sense every kind of fire every time. In general, detectors may not always warn about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson. Depending on the nature of the fire and/or the location of the smoke detectors, the detector, even if it operates as anticipated, may not provide sufficient warning to allow all occupants to escape in time to prevent injury or death.
- Passive Infrared Motion Detectors can only detect intrusion within the designed ranges as diagrammed in their installation manual. Passive Infrared Detectors do not provide volumetric area protection. They do create multiple beams of protection, and intrusion can only be detected in unobstructed areas covered by those beams. They cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows. Mechanical tampering, masking, painting or spraying of any material on the mirrors, windows or any part of the optical system can reduce their detection ability. Passive Infrared Detectors sense changes in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 90° to 150°F, the detection performance can decrease.
- Alarm warning devices such as sirens, bells or horns may not alert people or wake up sleepers who are located on the other side of a closed or partly open doors. If warning devices sound on a different level of the residence from the bedrooms, then they are less likely to waken or alert people inside the bedrooms. Even persons who are awake may not hear the warning if the alarm is muffled by noise from a stereo, radio, air conditioner or other appliances, or by passing traffic. Finally, alarm warning devices, however loud, may not warn hearing-impaired people or waken deep sleepers.
- Telephone lines needed to transmit alarm signals from a premises to a central monitoring station may be out of service or temporarily out of service. Telephone lines are also subject to compromise by sophisticated intruders.
- Even if the system responds to the emergency as intended, however, occupants may have insufficient time to protect themselves from the emergency situation. In the case of a monitored alarm system, authorities may not respond appropriately.
- This equipment, like other electrical devices, is subject to component failure. Even though this equipment is designed to last as long as 10 years, the electronic components could fail at any time.

The most common cause of an alarm system not functioning when an intrusion or fire occurs is inadequate maintenance. This alarm system should be tested weekly to make sure all sensors are working properly.

Installing an alarm system may make one eligible for lower insurance rates, but an alarm system is not a substitute for insurance. Homeowners, property owners and renters should continue to act prudently in protecting themselves and continue to insure their lives and property.

We continue to develop new and improved protection devices. Users of alarm systems owe it to themselves and their loved ones to learn about these developments.

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ADEMCO
LIMITED WARRANTY

Alarm Device Manufacturing Company, a Division of Pittway Corporation, and its divisions, subsidiaries and affiliates ("Seller"), 165 Eileen Way, Syosset, New York 11791, warrants its products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 18 months from the date stamp control on the product or, for products not having an Ademco date stamp, for 12 months from date of original purchase unless the installation instructions or catalog sets forth a shorter period, in which case the shorter period shall apply. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any part which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Ademco factory service. For warranty service, return product transportation prepaid, to Ademco Factory Service, 165 Eileen Way, Syosset, New York 11791.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

Seller does not represent that its product may not be compromised or circumvented; that the product will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of a burglary, robbery or fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. However, if Seller is held liable, whether directly or indirectly, for any loss or damage arising under this Limited Warranty or otherwise, regardless of cause or origin, Seller's maximum liability shall not in any case exceed the purchase price of the product, which shall be the complete and exclusive remedy against Seller.

This warranty replaces any previous warranties and is the only warranty made by Seller on this product. No increase or alteration, written or verbal, of the obligation of this Limited Warranty is authorized.

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4+2 EXPANDED FORMAT ZONES 9-16 REPORTS

(Enter 00 - 15; 00 = no channel reporting)

*73 — 1st DIGIT

ALRM	
TRBL	
BYPASS	
ALRM RESTR	
TRBL RESTR	
BYPASS RESTR	

*77 — 2nd DIGIT

Z9	
Z10	
Z11	
Z12	
Z13	
Z14	
Z15	
Z16	

4+2 EXPANDED FORMAT ZONES 17-24 REPORTS

(Enter 01 - 15; 00 = no code reporting)

*74 — 1st DIGIT

ALRM	
TRBL	
BYPASS	
ALRM RESTR	
TRBL RESTR	
BYPASS RESTR	

*78 — 2nd DIGIT

Z17	
Z18	
Z19	
Z20	
Z21	
Z22	
Z23	
Z24	

4+2 EXPANDED FORMAT KEYPAD PANICS/ZONES 25-27/ XPDR SUPVSRY

(Enter 01 - 15; 00 = no code reporting)

*75 — 1st DIGIT

ALRM	
TRBL	
BYPASS	
ALRM RESTR	
TRBL RESTR	
BYPASS RESTR	

*79 — 2nd DIGIT

Z25	
Z26	
Z27	
DURESS	
WIRING SHORT, ZONE EXP.	
1 & * PANIC	
3 & # PANIC	
* & # PANIC	

4+2 EXPANDED FORMAT NON-ALARM CODES

(Enter 01 - 15; 00 = no code reporting)

*80 — 1st DIGIT 2nd DIGIT

CLOSE REPORT	
OPEN REPORT	
LOW BATT REPORT	
LOW BATT RESTORE RPT	
TEST REPORT	

4+2 EXPANDED FORMAT NON-ALARM CODES (CONT'D)

(Enter 01 - 15; 00 = no code reporting)

*81 — 1st DIGIT 2nd DIGIT

POWER-UP REPORT	

*2nd digit is also second digit for program tamper code (see *40)

AC LOSS REPORT	
AC RESTORE REPORT	
CANCEL REPORT	

SWINGER SHUTDOWN *82
01-15 ALARMS

TEST REPORT START *83
01-31 HRS.; 00 = INSTANT

KISSOFF WAIT *84
1 = ADEMCO High speed on WATS;
0 = other formats or if local telco lines are being used.

DO NOT USE *85 — must be zero

ZONE EXPANDER TYPE *86
1 = No. 4208;
0 = other VECTOR type RPM's

ENTRY WARNING *87
1 = CONT.; 0 = 3 BEEPS

BURG. ALARM COMM DELAY *88
1 = 16 SECS.; 0 = NO DELAY

NOT USED *89 — 0 must be zero

SEC. SUBSCRIBER # *90
00 - 09; B- F [11 - 15]

ACCESS THE FOLLOWING ADDRESSES (100 - 148) BY ENTERING *94 WHILE IN THE PROGRAMMING MODE. ONLY THE LAST 2 DIGITS OF EACH ADDRESS MUST BE KEYED.

OPEN/CLOSE REPORT ENABLE *100
1 = YES, 0 = NO

USER	17	18	19	20	21	22

ASSIGN RESPONSE TYPE FOR ZONES: (SEE FLDS.02 - 05)

*101 ZNS 28 - 32

Z28	
Z29	
Z30	
Z31	
Z32	

*102 ZNS 33 - 40

Z33	
Z34	
Z35	
Z36	
Z37	
Z38	
Z39	
Z40	

*103 ZNS 41 - 48

Z41	
Z42	
Z43	
Z44	
Z45	
Z46	
Z47	
Z48	

*104 ZNS 49 - 56

Z49	
Z50	
Z51	
Z52	
Z53	
Z54	
Z55	
Z56	

*105 ZNS 57 - 64

Z57	
Z58	
Z59	
Z60	
Z61	
Z62	
Z63	
Z64	

*108 ASSIGN RESP. TYPE 2ND 4280

	0 0
	0 0
	0 0
	0 0
	0 0
	0 0
	0 0
Z88	2nd 4280 NOT REC XMTR SIG

*106 NOT USED

*107 NOT USED

*109 ASSIGN RESP. TYPE 1ST & 2ND 4280

Z89	2ND 4280 NOT RESP / BAD CONN TO PANEL
Z90	1ST 4280 NOT RECEIVING XMITTER SIGNALS
Z91	1ST 4280 NOT RESP / BAD CONN TO PANEL

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DESIGNATE RIGHT ZONE USAGE (SEE *06 FOR CHOICES)

*110 ZN 33 - 40 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

*111 ZN 41 - 48 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

*112 ZN 49 - 56 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |

*113 ZN 57 - 64 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |

*114, *115, *116, *117 NOT USED

SELECTION OF WIRELESS FOR: (1 = YES, 0 = NO)

*118 ZN 1 - 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

*119 ZN 9 - 16 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

*120 ZN 17 - 24 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |

*121 ZN 25 - 32 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

*122 ZN 33 - 40 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

*123 ZN 41 - 48 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

*124 ZN 49 - 56 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |

*125 ZN 57 - 63 | 57 | 58 | 59 | 60 | 61 | 62 | 63 |

*126 1ST 4280 RF XPNDR SELECT ☐
1 = YES, 0 = NO

*127 2ND 4280 RF XPNDR SELECT ☐
1 = YES, 0 = NO

*128 RF XMITR LO BAT ANNUN ☐
1 = IMMED, 0 = WHEN DISARMED

*129 RF XMITR LO BAT RPT ☐
1 = YES, 0 = NO

*130 4280 SUP CHK-IN MON. INTRV ☐☐ X 2 HOURS
01 - 15

*131 RF XMTR CHK-IN MON. INTRV ☐☐ X 2 HOURS
01 - 15

*132 ADEMCO H.S. CONTACT RPT FMT ☐
1 = YES, 0 = NO

*133 TT DIAL W/ ROTARY BACKUP ☐
1 = YES, 0 = NO

*134 COMM SPLIT REPORTING ☐
0= NO, 1 = ALARMS PRIM/OTHERS SEC, 2 = OP/CL, TST SEC, OTHERS PRI

CHANNEL ASSIGNED TO EACH ZONE
(ENTER 01 - 15, 00 = NO CODE REPORTING)

*135 ZN 28 - 32
Z28 ☐☐
Z29 ☐☐
Z30 ☐☐
Z31 ☐☐
Z32 ☐☐

*136 ZN 33 - 40
Z33 ☐☐
Z34 ☐☐
Z35 ☐☐
Z36 ☐☐
Z37 ☐☐
Z38 ☐☐
Z39 ☐☐
Z40 ☐☐

*137 ZN 41 - 48
Z41 ☐☐
Z42 ☐☐
Z43 ☐☐
Z44 ☐☐
Z45 ☐☐
Z46 ☐☐
Z47 ☐☐
Z48 ☐☐

CHANNEL ASSIGNED TO EACH ZONE (01 - 15, 00 = NO CODE ENTRY)

*138 ZNS 49 - 56
Z49 ☐☐
Z50 ☐☐
Z51 ☐☐
Z52 ☐☐
Z53 ☐☐
Z54 ☐☐
Z55 ☐☐
Z56 ☐☐

*139 ZNS 57 - 64
Z57 ☐☐
Z58 ☐☐
Z59 ☐☐
Z60 ☐☐
Z61 ☐☐
Z62 ☐☐
Z63 ☐☐
Z64 ☐☐

*140, *141 NOT USED

*142 ASSIGN CHNNL TO 2ND RCVR FAULT
0 0
0 0
0 0
0 0
0 0
0 0
0 0
Z88 ☐☐ 2ND 4280 NO XMTR CHECK-IN FAULT

*143 CHANNEL ASSIGNED TO RF RCVR FAULTS
Z89 ☐☐ 2ND 4280 NOT FUNCTIONAL
Z90 ☐☐ 1ST 4280 NO XMTR CHECK-IN FAULT
Z91 ☐☐ 1ST 4280 NOT FUNCTIONAL

*144 WIRELESS KEYPAD TAMPER DETECT ENABLE ☐
1 = YES, 0 = NO

*145 ENABLE CONSOLE ANNUN DURING EXIT DELAY ☐
1 = YES, 0 = NO

*146 AUX. OUTPUT FUNCTION ENABLE ☐
0 = GND START, 1= OP/CL TRGR, 2= CONSOLE SOUNDS

*147 ENABLE CHIME ANNUN ON EXTERNAL ALARM SNDR ☐
1 = YES, 0 = NO

*148 WIRELESS KEYPAD DISABLE ☐ 1 = YES, 0 = NO

*149 DISABLE RF XMITR CHECK-IN FAIL TRBL SOUNDING ☐
1 = YES, 0 = NO

HEXADECIMAL TO NUMERIC ENTRY CONVERSION

0 = 10 (REPORT CODES)

0 = 00 (SUBS ID, PABX OR CS ID)

1= 01 2= 02 3 = 03 4= 04 5= 05 6= 06 7=07

8= 08 9= 09 B= 11 C= 12 D= 13 E= 14 F= 15

A = 10 (CS ID only)

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4130XM/4140XM/5130XM PROGRAMMING FORM

INSTALLER CODE *00
(ENTER 0-9)

MASTER CODE *01
(ENTER 0-9)

RESPONSE TYPE *02
(ENTER 00-10)

00 = unused zone
01 = E/E #1
02 = E/E #2
03 = Perimeter
04 = Interior Follower
05 = Trouble by day/ Alarm by night
06 = 24 hr Silent
07 = 24 Hr Audible
08 = 24 hr Auxiliary
09 = Fire
10 = Interior Delay

* If Zone 7 is to be used for key switch Arm/Disarm operation, enter 10.

ZONES 1 2 3 4 *02
ZONES 5 6 7 8
ZONES 9 10 11 12 *03
13 14 15 16
17 18 19 20 *04
21 22 23 24
25 26 27 0 0 *05
SHORT 1 & * 3 & # * & #

DESIGNATE RIGHT ZONE USAGE *06
0 or 1; 0 for 4208, 4139, 4191,4192SD,4194,4275 usage and for left loop on4190WH and PIR on 4196; 1 for right loop on 4190WH and auxiliary loop on 4196.
10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 *07
25 26 27 28 29 30 31 32 *08

ENTRY DELAY #1 *09
X 15 secs (00 - 15)

EXIT DELAY #1 *10
X 15 secs (00 - 15)

ENTRY DELAY #2 *11
X 15 secs (00 - 15)

EXIT DELAY #2 *12
X 15 secs (00 - 15)

ALARM SOUNDER TIME DURATION *13
X 2 mins. (01 - 15)

NOT USED *14 0
MUST BE 0.

KEYSWITCH ENABLE *15
1 = Yes, 0 = No

CONFIRMATION OF ARMING DING ENABLE *16
1 = Yes, 0 = No

AC LOSS TRBL SOUND *17
1 = Yes, 0 = No

AC PWR LOSS ALARM *18
1 = Yes, 0 = No

CONTROL ALARM SOUNDER DISABLE *19
1 = Yes, 0 = No Makes no difference for 4140

NOT USED *20 0
(MUST BE ZERO)

NO FIRE TIME-OUT *21
1 = Yes, 0 = No

NOT USED *22

MULTIPLE ALARMS *23
1 = Yes, 0 = No

DISABLE TAMPER DETECTION IN EXPANSION ZNS 10-64 *24
1 = Yes, 0 = No

DISABLE DURESS IN HIGH SPEED FORMAT *25
1 = Yes, 0 = No

INTERNAL ALARM SOUND SELECTION *26
1 = sweeping; 0 = louder, steady; makes no difference for 4140XM

TEST REPORT INTERVAL *27
0 = no report; 1 = 12 hrs.; 2 = 24 hrs.;3 = 168 hrs

POWER-UP IN PREVIOUS STATE *28
1 = Yes, 0 = No

QUICK ARM *29
1 = Yes, 0 = No

TOUCH-TONE DIAL *30
1 = Yes, 0 = ROTARY

PABX CODE *31
00 - 09; B - F (11-15)

PRIM SUBSCRIBER # *32
00 - 09; B - F (11-15)

PRIMARY PHONE # *33
0 - 9

SEC PHONE # *34
0-9

CS DOWNLOAD# *35
0-9

CS ID# *36
00 - 09; A - F (10 - 15)

DOWNLOADING COMMANDS ALLOWED *37
1 = Yes, 0 = No

1 DIALER SHUTDOWN
2 SYSTEM SHUTDOWN
3 NOT USED 0
4 REMOTE BYPASS
5 REMOTE DISARM
6 REMOTE ARM
7 UPLOAD PROGRAM
8 DOWNLOAD PROGRAM

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PRIORITY ZONE *38
01 - 31 (00 if all zones are bypassable)

USER 9 10 11 12 13 14 15 16

OPEN/CLOSE REPORT ENABLE *39
1 = Yes, 0 = No

PROGRAM TAMPER RPT *40
(1st digit) 01 - 15 (00 - no report)

USE EOLRs ON ZONES 2-8 *41
1 = N.C. loops, 0 = EOLR supervision

DIAL TONE PAUSE *42
0 = 5 secs., 1 = 11 secs, 2 = 30 secs.

DIAL TONE DETECT *43
1 = Yes, 0 = No; JUST PAUSE

RING DETECT COUNT *44

00 = no ring detect; 01 - 14 for ring counts of 1 - 14;
15 when telephone answering machine is connected to the same phone line

PRIM ACK WAIT *45
0 = 30 secs. ; 1 = 60 secs.

PRIM XMIT FORMAT *46
0 = ADEMCO LO; 1 = SESCOA/RAD
2 = ADEMCO HI SPEED

SEC ACK WAIT *47
0 = 30 SECS; 1 = 60 SECS.

SEC XMIT FORMAT *48
0 = ADEMCO LO; 1 = SESC/RAD
2 = ADEMCO HI SPEED

CHECKSUM VERIFY *49
1 = Yes, 0 = No

SESCOA/RADIONICS SELECTION *50
0 = Radionics format w/ 0 - 9, B - F reporting;
1 = SESCOA format w/ 0-9 reporting

DUAL REPORTING *51
1 = Yes, 0 = No

USER 1 2 3 4 5 6 7 8

OPEN/CLOSE REPORT ENABLE *52
1 = Yes, 0 = No

4+2 ZONE (MAX. OF 27 ZONES) FORMAT SELECTION *53
0 = a non-expanded zone configuration.
1 = 4+2 reporting by zone for a zone expanded system.

4+2 ZONE (MAX. OF 9 WIRED ZONES) FORMAT SELECTION *54
1 = 4+2 format;
0 = 3+1/4+1 or ADEMCO Hi Speed format

ALARM REPORT *55
0 = Standard; 1 = Expanded

RESTORE REPORT *56
0 = Standard; 1 = Expanded

BYPASS REPORT *57
0 = Standard; 1 = Expanded

TROUBLE REPORT *58
0 = Standard; 1 = Expanded

OPEN/CLOSE REPORT *59
0 = Standard; 1 = Expanded

LOW BAT; AC LOSS REPORT *60
0 = Standard; 1 = Expanded

CHANNEL ASSIGNED TO EACH ZONE *61 (Enter 01 - 15; 00 = no code reporting)

ZONE 1 2 3 4 5 6 7 8

*62

ZONE 9 10 11 12 13 14 15 16

*63

ZONE 17 18 19 20 21 22 23 24

*64

ZONE 25 26 27 DURESS SHORT 1 & * 3 & # * & #

ALARM CODES FOR EACH CHANNEL *65 *66
(Enter 01 - 15;
00 = no code reporting)

CH1		CH9	
CH2		CH10	
CH3		CH11	
CH4		CH12	
CH5		CH13	
CH6		CH14	
CH7		CH15	
CH8		NOT USED	0 0

NON-ALARM CODES *67 *68
(Enter 01 - 15;
00 = no code reporting)

AC LOSS		OPEN	
AC LOSS 2nd DIGIT		CLOSE	
TRBL		LO BAT	
TRBL RESTR		L BAT 2nd #	
BYPASS		TEST	
BYPASS RESTR		PWR UP	
RESTR CODE FOR ALRM, AC, LO BAT		CANCEL	

ZONE TYPES 1-10 RESTORE REPORT ENABLE *69
(1= YES; 0 = NO)

1 2 3 4

*70 5 6 7 8

*71 9 10

4+2 EXPANDED FORMAT ZONES 1-8 REPORTS *72 *76
(Enter 01 - 15;
00 = no code reporting)

	1st DIGIT	2nd DIGIT	
ALRM		Z1	
TRBL		Z2	
BYPASS		Z3	
ALRM RESTR		Z4	
TRBL RESTR		Z5	
BYPASS RESTR		Z6	
		Z7	
		Z8	

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